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BPA

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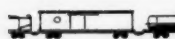
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CHECK POINTS

The test of any man is how well he conducts himself under pressure. In baseball, we admire the clutch hitter. In football, we respect a man who can calmly kick a game-winning extra point before a stadium full of excited fans. In every competitive endeavor, the ability to remain calm and think clearly when the chips are down is a huge factor in success.

The same thing holds for the business world. Common men may be stampeded into panic at the first sign of economic storm. But the real professionals are not particularly disturbed by the inevitable fluctuations in the economy. Sure, they react and take necessary measures to adjust policies where needed, just as a pilot corrects his course for wind drift. But they never lose their equilibrium.

We can see this today as we go through what some call a minor recession or rolling adjustment. We find those who are ready to panic at the first sign of trouble, while others sail smoothly ahead, certain that the long-term outlook must be good.

For example, we have seen many newspaper stories stating that 1961 will be a very poor year for new plant expansion. The casual reader is left with the impression that there just won't be many new plants built during the coming year. We have actually encountered small-town development groups which, after reading such reports, were about to postpone any industry-seeking efforts until a later year when things were more promising!

To set the record straight, let's look at what has happened in recent years, as the economy fluctuated through various recessions and leveling-off phases. Here are the expenditures for new plant and equipment since 1952:

Year	Billions of dollars
1953	28.3
1954	26.8
1955	28.7
1956	35.1
1957	37.0
1958	30.5
1959	32.5
1960 (estimated)	36.3

Of course, estimates for 1960 vary, but those who have had most experience with industrial expansion seem to agree that we are in for a decline of about ten percent in 1961. Taking an even more pessimistic view, if we had only \$30 billion spent during the coming year, it would still be a year of tremendous industrial growth.

Remember, a \$30 billion investment is the equivalent of 30,000 new plants each costing a million dollars. Our guess is that 1961 will see the addition of at least 3,000 important new plants — all of which means that there will be no let-up in site survey activity.

The Cuban situation is a sore point for just about every U. S. citizen. For thousands who have lost substantial investments through "intervention", the Castro regime is tragic. But the folks who are really kicking themselves are those who could have protected their investments through low-cost guaranties provided by the U. S. government — and didn't.

We refer to the investment guaranty program administered by the International Cooperation Administration. This program, begun in 1948, provides U.S. guaranties for new investments in foreign countries cover-

CHECK POINTS

ing loss through expropriation, confiscation, war damage, or inconvertibility of currency. The program hinges on agreements between the U.S. and cooperating nations.

Any new investment made in Cuba after 1948 and prior to Castro could have been insured. None were! U.S. firms lost millions of dollars in Cuba through failure to take advantage of the low-cost plan that was available to them.

Apparently, U.S. firms just did not believe that anything could happen to their investments so close to home and in a country with such a long record of friendly business relations. No one applied for coverage until after Castro came into power, and then it was too late because he refused to sign the multi-lateral agreement. But, as ICA official Gordon Eakle put it, Castro "stimulated vast interest" in the program and guaranties are now being negotiated in a large volume for other nations both in Latin America and elsewhere.

Certainly, this is something you will want to investigate henceforth **before** you make a plant location decision. We emphasize **before** because guaranties must be arranged before an investment is made. Here are the countries for which you could obtain various types of coverage in 1960:

Convertibility	Expropriation	War Risk
Afghanistan	Afghanistan	Afghanistan
Argentina (Dec. 22, 1959)	—	—
Bolivia	Bolivia	—
China, Republic of	China, Republic of	China, Republic of
Colombia	—	—
Costa Rica	Costa Rica	—
Ecuador	Ecuador	—
El Salvador (Jan. 29, 1960)	El Salvador	—
Ghana	Ghana	—
Greece	Greece	—
Guatemala	Guatemala	—
Haiti	Haiti	—
Honduras	Honduras	—
India	India (Dec. 7, 1959)	—
Iran	Iran	—
Israel	Israel	Israel
Jordan	Jordan	Jordan
Korea	Korea	Korea
Malaya, Fed. of (Apr. 21, 1959)	Malaya, Fed. of	—
Nepal	Nepal	Nicaragua
Nicaragua (Apr. 14, 1959)	Nicaragua	—
Pakistan	Pakistan	—
Paraguay	Paraguay	—
Peru	—	—
Philippines	Philippines	—
Portugal	Portugal	—
Spain	Spain	Sudan
Sudan (Mar. 17, 1959)	Sudan	Thailand
Thailand	Thailand	Tunisia
Tunisia (Mar. 18, 1950)	Tunisia	—
Turkey	Turkey	Viet Nam
Viet Nam	Viet Nam	—
Yugoslavia	Yugoslavia	—

Although the Mutual Security Act of 1959 excluded economically developed countries for purposes of the investment Guaranty Program, guaranties are still available for the underdeveloped overseas dependencies of the following countries:

Belgium	Belgium	—
Denmark	Denmark	—
France	France	—
Italy	Italy	Italy
Netherlands	Netherlands	—
United Kingdom	—	—

We understand that several additional countries are expected to ratify agreements this winter. Full latest data, contact Charles B. Warden, Chief, Investment Guaranties Division, ICA, Washington.

—H.M.C.

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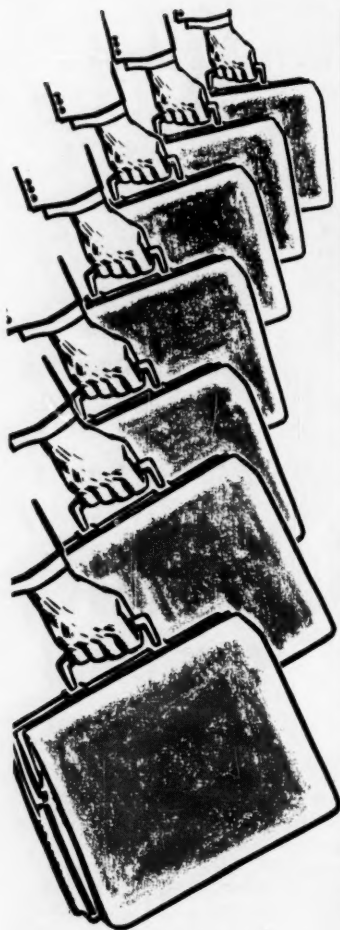
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INDUSTRIAL DEVELOPMENT LETTERS MANUFACTURERS RECORD

SIRS: Recently we received a most loosely-worded, inaccurate presentation from a community concerning an inquiry which we had made to them for an industrial firm employing over 500 men.

We thought that our answer to this community might be helpful to other developers who are answering similar inquiries everyday.

Naturally, in this letter, only the names and locations mentioned have been changed in order to protect what is left of the reputation of our original correspondent.

RONALD M. REIFLER
Fantus Factory Locating Service
Chicago, Illinois

Below is Mr. Reifler's answer to the community mentioned above.

"Dear Mr. Jones:

"Thank you very much for responding to our inquiry. We appreciate the substantial amount of work involved in putting together a report of this nature. However, as you understand, we are dependent upon you to supply us with reliable, accurate information. There are a number of items of questionable validity in your report which makes us question all of the answers.

"I would like to point out a few of these things in an effort to see if we can obtain some accurate answers.

"You indicate that Your Town is a 25 minute drive to the Metropolitan Airport. Do you know of anyone that has ever made this distance in 25 minutes? If not then would you like to revise your estimate? We would suggest that you use average automobile time rather than fast helicopter time.

"On page 1 of our Fantus Community Data Form you indicate that two U.S. highways enter Your Town. Looking at a state highway map we see that no U.S. highways enter Your Town.

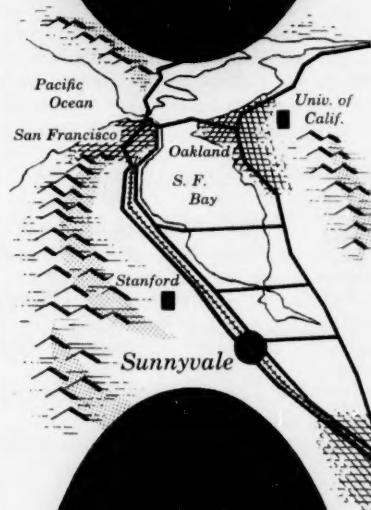
"In our question entitled "What percent of the city is served by storm sewers?", you have indicated 100%. We doubt if there are any cities in the country which have 100% of the city served by storm sewers. Could you give us a more precise figure?

"On the restrictions of the use of gas for space heating and for process use, you have indicated "none." Neighboring towns in your immediate area require that if the temperature drops below a certain point, restrictions on the use of gas for space heating go into effect. Please indicate whether or not this applies to your city. If not, why not?

"We would like to comment on the sheet which Fast Motor Freight of your town prepared for us dated September 23, 1960. They have indicated, among other things, direct line service to St. Louis, Atlanta and Boston. A check of our directory indicates that this company does not offer a direct line service to those cities. Would you kindly review this with them.

"While undoubtedly a large portion of the other answers which you have supplied are accurate in this report, it is a shame that a few glaring errors have to cast doubt upon the accuracy of all of your information. As you know, our policy is to present to our clients fair, accurate and unbiased statements. Some of the things that give Chamber of Commerce representatives poor reputations are extravagant statements, misleading

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LETTERS

statements and inaccurate statements. We have advised our clients that this type of Chamber of Commerce approach has long since "bit the dust." It is surprising, therefore in the light of this, to find your answers stated in the way that they were.

"We would like to give you the opportunity to correct this in order that you will not be in the position of losing this or any future industrial prospects."

* * *

SIRS: In the nine months that we have been operating we have worked with companies in the selection of communities in upstate New York for manufacturing operations. Our work with those clients brought us into contact with local industrial development groups.

Many times we were impressed with the apparent need on the part of local spokesmen for help in dealing with prospective employers. Often they seemed to have only vague answers to questions, and lacked an awareness of the operational requirements of particular industries. As a result of those experiences, we prepared a brochure that we think can be useful to them. It is especially intended for "volunteer" community leaders whose personal experience does not include coping with plant location problems.

Your experience and your extremely good vantage point for the observation of community problems and the ways in which they can be satisfied are well recognized by us. . . . If you think that your readers might be interested, we would be pleased to provide them with copies at their request.

WALTER E. BRODERICK
Management Research Associates, Inc.
74 Chapel Street
Albany, New York

* * *

SIRS: I am directed to refer to your letter . . . announcing your new publication, "Area Development." This Ministry is already familiar with your international magazine, **INDUSTRIAL DEVELOPMENT** and **MANUFACTURERS RECORD** and finds that it contains useful information to serve as a guide for industrial planning and expansion.

I am to thank you for your invitation to send on any material that we feel might be useful for inclusion in your publication. Although the Federation of Malaya has only recently embarked on an industrialisation programme, it is considered by investors as having adequate facilities and an investment climate for the establishment of new industries. We are preparing certain notes on our industrial development policy and progress which we shall be pleased to send on to you as soon as they are ready.

S. A. ABISHEGAM
Industrial Development Division
Ministry of Commerce & Industry
Kuala Lumpur, Malaya

* * *

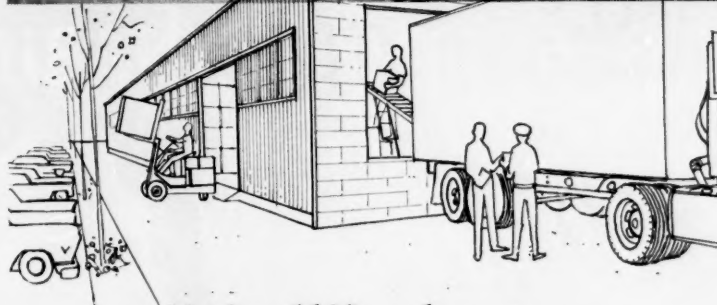
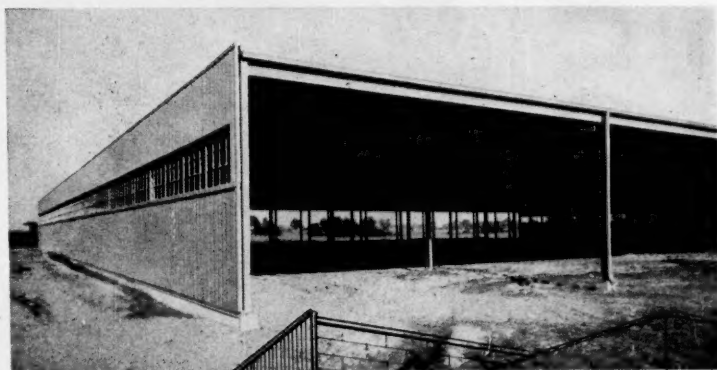
SIRS: Your article in the September issue of "Georgia's Growth" was certainly well written and complete.

We would appreciate receiving approximately ten reprints so we may send these to several of our accounts.

CHARLES F. DILCHER, JR.
Dilcher Engineering Company
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argentina's lesson:

TOTALITARIAN CONTROLS



In Latin America, an area historically marked by political upheaval and unrest, Argentina stands out today as an encouraging example of what can be accomplished in growth and development when constitutional government takes over to remedy the ills left by "irresponsible" dictatorship. Says Argentine Minister of Economy Alsogaray: "We are actually struggling for the defense of a way of life based on liberty, freedom and respect for human dignity."

ARE INCOMPATIBLE WITH GROWTH

By Alvaro Alsogaray

In Argentina there are serious problems created over more than one decade by the action of totalitarian and technically irresponsible mentalities, which we are attempting to solve by means of the application of modern techniques that make up what in our country we call Free Social Economy and which is comparable to your system of free enterprise.

In order to give a sufficiently clear and understandable picture of the Argentine situation, I would like to begin with a brief summary of the political and economic history of the country in the last few years. It will enable me to explain the dynamics of the present process. It is not important to depict a static picture, like a photograph, of what Argentina is today; what is really interesting is the evolution of the process, to show how low Argentina had fallen, the efforts it has made and is making to recover, how far it has travelled in the road to recovery and also what it proposes

to achieve.

Antecedents of the Situation

From 1945 to 1955, Argentina experienced a dictatorship. Its economic philosophy was based on extreme nationalism and consisted of the irresponsible application of socialistic theories, state ownership of public utilities, governmental control of production, distribution and trade of all our basic commodities. This was made possible by dictatorial procedures with great corruption and loss of individual liberties and inevitably led to increased inflation, as one could readily expect.

Argentina's foreign exchange reserve, which at the end of the war stood at 1600 million dollars, within ten years was lost and the country became indebted abroad for over 700 million dollars. The country failed to replace essential machinery and equipment and became decapitalized to an incredible extent. Perhaps it is difficult for you to realize the magnitude of the de-

struction that took place in Argentina by the application of the ill-fated national-socialistic policies to our economy. The destruction even surpassed the strictly economic sphere and it gradually succeeded in developing by governmental propaganda a public mentality disposed to believe in easy solutions based on inflation, to reject international cooperation under the pretext that it meant submission to the imperialistic ambitions of certain countries. International institutions like the Fund and the Bank were supposedly a symbol of such imperialism.

All that which was foreign, and even more precisely the private enterprises in certain fields of activity, was divulged by the Government in its propaganda effort as an attack against nationalism and sovereignty. We thus in a short time turned toward collectivism.

In one way or another, some times through dealings which stressed the existing corruption and

ARGENTINA

in others outrightly taking possession of property through expropriation or attachment, the Government took over the railways, most of the transportation services, telephone companies, power companies (among which was the American Foreign Power), strictly national airlines owned by Argentine born citizens, a good number of industrial and commercial enterprises of all types, news agencies and broadcasting stations, in short all that which benefited its ends, whether political, for control or simply petty revenges of a personal nature.

When enterprises were directly attached, it affected indirectly their activities through price control, importation quotas, the stimulus of aggressive action by certain unions, etc. Practically all the economic and social activity came to be at a given moment under government control.

In September 1955, a revolution put an end to this state of affairs. I personally believe that the advent of the revolution prevented us Argentines from taking the few last steps needed to cover the short distance between our policies and those of communistic states.

The revolution changed the morality and restored individual and political liberties. But unfortunately it could not introduce the basic fundamental changes required in our social and economic fields. Although it mitigated somewhat certain of the past policies, the nationalistic and socialistic concept largely prevailed and no great progress was made during the two and a half years of the revolutionary government. In fact, we lost in this respect these years.

In May 1958, the constitutional government of President Frondizi was inaugurated. The inertia of the previous process prevailed during the first few months of his administration and we travelled still along the road of inflation. But after seven months, the country decided to make fundamental changes; that is, to end inflation, to stabilize the currency, to live within its means and to take decisive measures to make possible the healthy growth of our economy. On December 29, 1958, Argentina devalued its currency, eliminated controls of imports, allowed internal prices to seek their

own levels, limited credit expansion and salary and wage increases, reduced consumption, imported less, and put into effect all the necessary measures to insure an effective economic recovery of our free enterprise system.

Naturally, these measures had, as an immediate consequence, the reduction in the standard of living of a vast sector of our population. Thus, during the first months of 1959 confusion was rife and increasing difficulties developed. But in July of 1959 a new economic team was brought into the Government to which was entrusted simultaneously the conduct of our labor policies.

From that moment on it was possible to conduct resolutely and firmly the stabilization and recovery policies which had been planned and which are now in full operation. These experiences of Argentina have, therefore, been limited to less than two years, perhaps, fifteen months, and the results of our achievement should be appreciated taking into account this short period of time. Allow me now to state briefly the main results so far obtained:

Economic Recovery

In spite of complete liberalization of all our imports and exports and capital movement, the monetary reserves of the country have increased from 179 million dollars in June 1959 to over 700 million dollars at the present time. It is true that part of these reserves have been brought up with the help and cooperation of international financial institutions and loans from private sources, but it is also a fact that our own reserves have increased, that we have repaid heavy indebtedness and that we have restored confidence in our exchange market.

Our country used to import annually over 250 million dollars worth of fuel. The national-socialistic mentality prevented us for many years from obtaining foreign cooperation to develop our own petroleum sources. The constitutional government radically changed that attitude and we signed private contracts for oil development under the guidance of the state-owned oil company, Y.P.F. This program has already reduced our import needs

by more than thirty per cent. We have even begun to export gasoline to Uruguay and soon Argentina will be self-sufficient in fuels. As a result of the policy of import liberalization and of the reduction of fuel imports and the restrictions in overall consumption, the country has consumed its excessive stocks of imported goods.

Our trade balance and the balance of payments have been favorable during the last two years. However, we must still develop export trade and we are taking steps to do so, chiefly by building up stocks of cattle and encouraging agricultural production through the maintenance of realistic exchange rates.

We are reducing from year to year our fiscal deficit and have managed for the first time in the history of the bureaucracy of the country to reduce the number of public employees on the government payrolls by more than 65,000 persons. We have succeeded in restoring the market for government securities with which we finance an increasingly larger amount of our government investments and the rates of interest have been steadily falling. However, the fiscal deficit continues to be our principal problem and we are determined in the course of next year to reduce it even further.

As a result of the depreciation of the currency, the elimination of subsidies and the freeing of prices, the cost of living rose almost 80 per cent in the first half of 1959. In the second half, the increase was only 15 per cent and during the first half of this year of 1960 the increase was only 6 per cent. In the month of September last, for the first time in many years, the cost of living declined by one per cent. We have therefore succeeded in stabilizing the cost of living without controls, without constrictive laws, without interfering in the activities of private business and industry, and instead, have fostered competition and productivity.

The dollar rate taken as a point of reference was approximately 30 pesos before the devaluation of 1959 and it reached 110 pesos to the dollar by mid-year with daily fluctuations of over 10 pesos. From August-September 1959 on we man-



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clear industrial water
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Alfred Russell

GOVERNOR OF THE STATE OF WASHINGTON



Just a year old and working 'round the clock, the big new Boise-Cascade pulp and paper mill at Wallula, Wash., produces 200 tons of kraft paper daily, fashions it into quality containers. Close to its supply of raw materials, with power, water and fast transportation all at hand, the plant is ringed by rapidly-growing agricultural and industrial areas where its production is readily marketed.

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**THE SURPRISING
STATE OF WASHINGTON**

ARGENTINA

aged to stabilize the currency, to terminate speculation, and the Argentine peso reached a value of around 83 pesos to the dollar which has been maintained for over a year. I wish to stress that our peso is free from controls, completely convertible, and that its value is kept at a stable level by market forces. The Central Bank is acting primarily as a buyer and during the last year our purchases exceeded 330 million dollars, which enabled us to redeem credits and increase reserves.

Perhaps the most fundamental aspect of our experiment lies in having attained these results within the operational framework of democracy. Private investments, either domestic or foreign, are finding in Argentina an increasingly favorable climate because they realize we conduct these new economic policies with absolute respect for human and political freedom and by holding frank public discussions with the public and with the unions. It is almost a year now since there have been political strikes in Argentina, which is evidence of the progress and increasing responsibility of the union leaders.

The country has gone through a hard process of stabilization with the conscientious support of the Argentine workers. Simultaneously with monetary stabilization and the establishment of the bases for the reconstruction of its economy, the country has achieved political and social stability. I do not believe the latter will be modified in the future. The constitutional ways are being steadily consolidated and the various political adventures that we have had to suffer last year as the wake of long periods harassed by great perturbations in the lives of our people, are progressively less likely to reoccur. As has been said, the attitude of the unions and the social climate are considerably better than what they were a year ago.

There are of course many problems to be solved, even in the social sphere, but our capacity to control happenings is now ever greater than what it was only a few months ago.

Development Program

Monetary stability and the other fundamental measures I have made reference to, have created in Argentina the indispensable conditions

for the immediate undertaking of an extensive development program.

We are quite aware of what a development program implies. We do not mistake development with fantasy. We also realize that no development program may be fulfilled if the feet are not kept on the ground, under noninflationary bases and within the real possibilities of the country.

But we are also quite aware that the effort we have requested from the Argentine labor forces must not remain unrewarded, and that said reward must be attainable as soon as possible through improvement in living conditions by means of a development program.

In the implementation of such program the Government, the private sector and cooperation from abroad will have to take part.

The Government faces among others the problem of eliminating the deficit of the budget. In fact, it has already done it in what concerns its central administration. The budget has in that sector a surplus of 15 million dollars. But unfortunately the State enterprises have on the other hand a deficit of 350 million dollars, which represents an overall deficit of 235 million dollars. In turn, the deficit of the State enterprises is in part originated by the losses in their operation, but mostly by investments. The operational losses must naturally be eliminated, but the problem of investments still remains.

We have not been able to reduce nor transfer in full the latter, since many of them are applied to work near completion; but we have made great progress in that direction. We are transferring the new power plant at Dock Sud to a private enterprise; we have sent to Congress a law whereby 90 per cent of the stock of the steel mill owned by the Government will be sold; we are selling the buses and microbuses transportation system of Buenos Aires; we have signed contracts for the exploitation of petroleum with local and foreign private companies, and in a few days we will call for bids under new contracts of the same type; we have incorporated private airlines in competition with the State owned one; in short, we are transferring and preventing new investments in all those productive

sectors and public services for which there is private capital available.

This policy will be carried on most energetically and the Government will direct its investments towards two main programs: the construction of a great road network and the urbanization of a great number of sections in various cities of the country so that, with the help of private enterprise, the problem of housing shortage may be solved. We are trying to obtain the collaboration of international financial institutions for these two programs and will also invite private companies to take part in them.

Private enterprise also has in Argentina an extensive field of activities in other sectors not considered in the preceding discussion. We are stimulating petrochemical, steel and cellulose production and various other new activities in addition to the already traditional industry of the country, which is quickly expanding and reequipping.

Forty per cent of our present imports are represented by capital goods, which no doubt will in the near future contribute to raise the standard of living of the people. This movement is reflected in the stock market, which level of operation increased in approximately four months from 150,000 dollars to 1,500,000 dollars daily.

Foreign capital and enterprises mentioned as the third factor in the development program, may participate therein both with the official and the private sectors. The Government intends to invite soon foreign companies to take part in the construction of the road network and the housing program.

With the private sector of the development program, Argentina is particularly interested in steel, cellulose and petrochemical production. In addition to those, all the other fields of activity are opened to national and foreign private enterprises. The Government is taking the final steps for the ratification of its adherence to the Investment Guaranty Agreement with the International Cooperation Administration.

On the other hand a law has been enacted in Argentina for capital investment, under which industries for a value of 300 million dollars

are already being installed. It is also possible to enter machinery and equipment for integrated production lines without the need to apply to the mentioned investment law.

The Government is now studying the problems related to double taxation, etc. In general the Government is prepared to grant other guaranties in the future, but in this connection it must be pointed out that the best guaranty is the policy followed by the Government, which on its own accord has corrected in less than two years many of the mistakes made in the past and has implanted in Argentina a free system perhaps of a higher degree than the one existing in many other countries with that philosophy.

Economy and Politics

The nationalistic and socialistic pressures are the main danger that we have to face in our country. These pressures act under the strength of slogans always pleasant to our national feelings and easily spread through demagogic propaganda. These slogans represent the easiest way of dragging the economic and social system of one country

toward chaos and of opening the doors to Communism. Its penetration is insidious and subtle and some factions of our major political parties have at one time or another let themselves be easily carried away by these slogans. Many platforms have included these panaceas and by doing so they have not been rendering a service, to democracy and to freedom. On the contrary, they have been serving in the most effective manner the purpose of Communism.

Argentina has had a long and bitter experience in these matters, and now sees with worry that in certain Latin American countries powerful forces are taking over to lead said countries down the same path we have travelled years ago. This is truly unfortunate and it implies a considerable risk which it is our responsibility to prevent. That responsibility is so much greater when also great are the possibilities of the country.

Our contribution to this problem might be, among others, the offering of the tremendous experience we have undergone. Our experi-

ence might guide and stimulate the governing groups willing to resist and prevent the disaster at the brink of which they stand. We now know that in the struggle for freedom the economic and social systems within which we live play a major role and are of decisive importance.

Interventionism and totalitarian controls on the economy by the Government are incompatible with the maintaining of individual freedom. They inevitably lead to material decadence, corruption and dictatorial politics. Thus we are not endeavoring to discuss only whether our countries should be somehow richer or poorer. We are actually struggling for the defense of a way of life based on liberty, freedom and respect for human dignity.

This is a struggle in which the position of us who defend the system of freedom is certainly a strange one. We have ideals, aims and objectives infinitely superior and incomparably more moralistic than those of the communists, and yet up to now we have always been on the defensive and have felt our-

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ARGENTINA

selves paralysed before the totalitarian upsurge. Even in what concerns the strictly technical aspect in the economic field and the solution of social problems, our methods are better and more efficient than those of the communists, and in spite of it we have not been able to take up the initiative.

Despite the efficacy of the modern techniques we command, we fall back before theories and methods that might have appeared as progressive 50 years ago but today are no more than clumsy and senile ways only useful for the obtention of a few objectives of a Pharaonic type.

Perhaps the difficulty stems from the fact that Communism can act

is also essentially political and that we have to use our imagination, the best methods and the maximum energy to explain to the man in the street, in our respective countries, that the philosophy of liberty and of international cooperation is infinitely superior to the obscure communistic process which leads to slavery.

Free private enterprises constitute within the modern industrial societies real political units that hold part of the power that in totalitarian states are concentrated absolutely in the Government. This is a fact that must be clearly recognized and its consequences must be openly faced by the very enterprises.

although theoretically this should liberate the individual from having to abide by the decision of other men, in practice it drags him through real slavery with full subdual to the State. It is there that the State decides what work he should do, in what city he should live and even what dwelling he should occupy, and the individual is then condemned to withstand indefinitely this situation that came about. Communism represents for the individual life without hope.

As I have pointed out, as enterprises assume part of the power, they also bear the burden of political responsibility. If they do not know how to live up to that responsibility, they fail in an essential aspect, such as the preservation of the system as a whole. The top management of these enterprises therefore have in turn a great responsibility to see that this failure does not take place.

Many of the problems that have arisen in underdeveloped countries of little political culture, particularly in South America, are due to the fact that some foreign enterprises have not lived up to the mentioned political duty. They have behaved in a strict economical sense and have forgotten those new and fundamental duties. They have not seen their way clear to granting assistance and social security to indispensable levels and have created reactions that in some cases have contributed to the destruction of the system of freedom and with it the very enterprises.

As representative of one of those small groups that in Latin America defend the philosophy of indivisible freedom in all fields, I would like to point out that the most decisive task before you is to understand the importance of the political and social responsibility that you have to undertake, whether you like it or not. If you resign from that duty, if you let that only a few comply with it and if you skimp your cooperation to those free units that are facing alone the struggle against demagoguery and communism, undoubtedly you will run sooner or later the risk of repenting your ways. In the struggle for liberty and our way of life there is no longer room for individual defections.

ALVARO ALSOGARAY

Alvaro Alsogaray, the Argentine Minister of Economy, is now in the U. S. to renew personal contact with financial circles. Born in Esperanza, Providence of Santa Fe, 46-year-old Mr. Alsogaray is a graduate in engineering from the Argentine Military School. After retiring from the Army with the rank of captain, he directed FAMA, the Argentine Air Line forerunner to the present Aerolineas Argentinas. Then, after other business ventures, he was in 1955 named Secretary of Commerce. Subsequently he was named Minister of Industry, and in 1958, when President Frondizi took office, Mr. Alsogaray traveled in the U. S. and Europe. Upon his return was named to his present position by President Frondizi.



without scruples through demagogues whose promises are never fulfilled. And this can be done because, once power is gained, no one can protest against the hoax. We are bound to act with sincerity, asking sacrifices and postponing aspirations and we are also bound to use abstract concepts for the public in general, such as currency stabilization, credit management, etc.

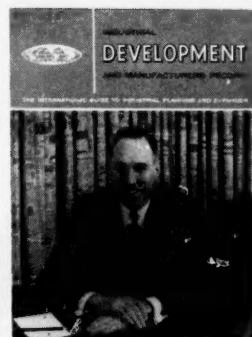
All of us have responsibilities mainly in the economic and financial fields. We are all aware of the formulas and procedures we should apply. But it will be very difficult for us to accomplish our mission if we do not clearly see that our task

The subdivision of power among the State and a great number of free and independent units constitutes the best guaranty for the maintenance of the basic individual freedom. In free societies the worker and the citizens act within a certain environment in which they are, in turn, free to decide. There is even for the less gifted individual a certain degree of self decision. He may seek the work best adapted to his aspirations, he may live where he desires and move freely. In short, he may lead his own life within certain limits.

In the communist state the only employer is the Government, and

Geared for orderly and rapid growth, International Resistance Company has a Long-Range Business Planning Department upon whose findings are predicated the firm's facilities planning for new construction, the use of its capital and all of its management action. This basic plan shows a growth potential for IRC of 250 per cent in the 1960-65 period, as explained here by the company's chief executive.

COVER STORY



SOUND PLANNING REVITALIZES EXPANSION PATTERN AT INTERNATIONAL RESISTANCE COMPANY

By Walter W. Slocum



At listing ceremonies of International Resistance Company common stock on the New York Exchange on June 20, 1960, were (left to right) Keith Funston, president of the exchange; Walter W. Slocum, I.R.C. president; Edward A. Stevens, vice president and treasurer of the company, and Charles Weyl, chairman of the I.R.C. board of directors.

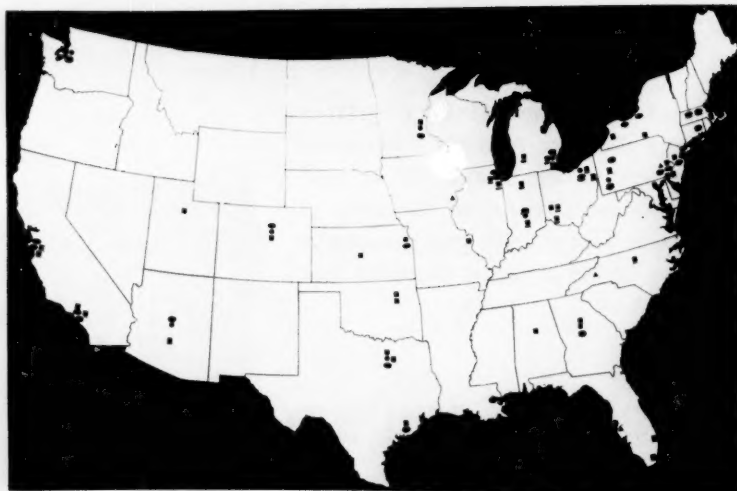
International Resistance Company is thirty-five years old but, in the past five or six years — and more specifically in the past two and one-half years — it has been almost completely reconstituted and reoriented. This was accomplished largely under the guidance of Charles Weyl, one of the founders of the company and now our chairman of the board.

Seven years ago, we had one central plant in Philadelphia. Today, we have six plants in the United States and Puerto Rico, and each is organized as a profit-center. Each is product-oriented, with its own complete management team for marketing, engineering, general management and production.

We have, in our central organization, a group of about 250 in research and engineering, an unusually large number for a Company of our size.

Until recently, we had one marketing group oriented only to the resistor field. Today, we have six marketing organizations under strong central marketing guidance, each of them completely product-oriented.

INTERNATIONAL RESISTANCE CO.



International Resistance Company installations shown on the map are: ● Sales offices; ■ government sales offices; ▲ marketing managers; ● electronic sales representatives. Manufacturing plants (not marked) are in Philadelphia and Downingtown, Pennsylvania; Burlington, Iowa; Boon, North Carolina; St. Petersburg, Florida; Vega Baja, Puerto Rico, and London, England.



This window leads into an ultra-clean room used by I.R.C. in the production of high reliability resistors for the Air Force Minuteman program.

We have, today, 5 District Offices coast-to-coast, as well as 16 manufacturer's representatives for resistor products, 24 manufacturer's representatives for other new products, 58 major industrial distributors, and over 1,400 distributors for replacement and other sales. This is a strong marketing organization and almost entirely new in concept and in personnel within the past several years.

The cost of this decentralization and the building of this marketing organization depressed IRC's earnings until recently, but in 1959 and again in 1960, the fruits of this large-scale effort have been evident.

Apart from domestic operations, our world-wide foreign operations, through long-established licensees, have become increasingly significant. In the past several years, sales of our licensees have begun to spiral upward in a surge of major importance to future earnings. Our licensees currently make more than one-half of all resistors used in foreign markets of the free world — and these markets are in the early stages of their infancy. They have only begun to expand.

Our lower-priced products are being used largely for radio and television applications in the foreign markets. Last year in England, I was told by knowledgeable officials

that the market for radio and television in England was then only about five per cent of its potential.

To our licensees in England, Denmark, West Germany, Italy, Canada and Australia, we have recently added Brazil, Argentina and Mexico. We have set these plants up with our processes, our automated equipment and with our engineering designs and patents. Major plant expansions were begun during 1960 in West Germany, Denmark, Italy and Australia. The Japanese are making overtures to us to license them in that country.

Many American firms, under the competitive conditions in this country and the increasing significance

of foreign competition, are only now seeking to establish positions in the foreign market, but we have been strongly entrenched in these markets for 25 years, and we can expect a substantial growth in income from these sources.

During 1960, we more than doubled our expenditures for basic research and new-product development over 1959. Furthermore, we substantially increased our expenditures for process automation and the expansion of our marketing organization in scope and in depth. We have expanded and markedly improved our laboratories and plant facilities. Additions at three plant locations during 1960 totaled about 70,000 square feet, or an approximate increase of seventeen per cent to our aggregate facilities.

Despite these major expenditures, our earnings for 1960 will approximate nine per cent after taxes, or about \$1.40 to \$1.50 per share, versus \$1.29 per share for 1959. Sales will be a record \$22 million.

Business in general for American industry in 1960 has been below expectations. In our industry, competi-

tion is severe and increasing. Costs have been pushed upward, and pricing pressures have been inherent. We expect all of this to continue with increasing emphasis in 1961. Our performance in this year of 1960 is under competitive conditions and we expect to show good performance in 1961 — under even more difficult, more competitive conditions — primarily with stepped-up emphasis on our programs for further process automation with respect to cost control, and on new-product development with respect to growth.

Our plans for 1961 propose larger expenditures than this year for research, engineering, new-product development and for marketing. Our plans for 1961 may include major additions to our manufacturing facilities to accommodate several new products now in, or approaching, pilot plant stage. These depend on the extent we are affected by what may be more than a sideways motion of the American economy, and which appears to us to be somewhat of a downward movement — but this can only lengthen

our timetable and cannot stop the end result. If our plans are not derimented, we expect, late in 1961, to add about thirty-five per cent to our facilities to accommodate new products.

IRC has not been characterized in past years as a growth company — and rightly so from its record. But the complete reorientation of the company — most pronounced in the past two and one-half years — has positioned us, in our own management thinking, to participate in the exceptional growth potentials offered by this decade. We base this conclusion on: (a) An achieved position of sound decentralized operations which is ready to accept new products and to adapt to new markets; (b) A sound cash position and credit position necessary for growth; (c) The demonstrated earnings performance of this management team; (d) A diversity of new products and new product programs of increasing proportions; (e) A will to grow which pervades our organization throughout. This management team is primarily growth oriented, and confident of our position and

INDUSTRIALLY SPEAKING

GARDNER

— MASSACHUSETTS —

IS UP IN ARMS!

Gardner, Mass. — Harrington & Richardson, Inc., of Worcester, arms manufacturer, has moved into this city's 63-acre Industrial Park, with the purchase of a 40,000 square foot industrial building. This is the third company in less than a month to

locate in Gardner, the others being New England Fabricating Company, an affiliate of Berwick Fabricating Co., Berwick, Pa., and Wildmann Corp., an affiliate of Signet Mfg. Company, Everett.



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abilities to capitalize on the growth period ahead.

Late in 1959 we organized a Long-Range Business Planning Department, reporting directly to one of our Vice Presidents. We already had a very adequate Marketing Research Department, but we formed the new group, and immediately undertook intensive studies of our marketing position in every existing product line. We made an evaluation of our technical strengths and of our weaknesses. In addition to our own endeavors, we engaged independent consultants to parallel our internal programs with nationwide, external research which was very sweeping and in considerable depth.

We then united these efforts into a constantly improving, basic plan of objectives for the Sixties as a whole and for the first five years in particular, in as realistic terms as possible. This plan, we feel, is vital as the basis for management action. We now direct every engineering program we have — and there are 39 in the house today — into specific fields of interest in accordance with our plan.

THE I.R.C. PRESIDENT

Walter W. Slocum heads, as president of International Resistance Company, the world's largest manufacturer of a complete line of resistors, producing more than 60 different electronic components in thousands of electrical and mechanical variations. Before joining I.R.C., Mr. Slocum was vice president of operations for Daystrom, Inc., and prior to that time he had for ten years headed W. E. Slocum & Company, his own firm of industrial engineers in Newark, N. J. During World War II he served in the Navy, attaining the rank of lieutenant commander. An engineering graduate of the University of Pennsylvania, he is active in a number of business and professional organizations. Mr. Slocum became president of I.R.C. in September, 1959.

Our facilities planning for new construction, the use of our capital and all of our management actions are now predicated on this basic plan which, of course, is changing and improving from week to week. We consider this plan the essence of our united management judgment and objectives. It shows a potential growth for International Resistance Company in the five-year period beginning with 1960 of up-

ward of 250 per cent in terms of sales and shipments.

This growth is predicated largely on conservative market evaluations of our new product programs, but does not ignore the very real possibility of our growth through acquisition. We are, in fact, almost constantly holding discussions with mutually-interested managements. Acquisitions could, of course, accelerate this projected growth.

We estimate that over 60 per cent of our sales in 1964 will be in new products and new-product areas now in research or under study or in the pilot-plant stage. We shall have 5 new pilot plants for 5 new products in initial operation by early 1961. This is tangible evidence of our forward progress.

It takes approximately two years, at the minimum, to launch a new product. Current programs in engineering and research are not expected to materialize significantly in terms of sales until 1962, but we expect acceleration thereafter.

We believe a sound earnings position is one of the essentials for growth. We do not believe, however, that it is possible to maximize growth and maximize earnings at the same time. We propose to maintain a reasonable balance between the two. We could have earned, I think, \$2.00 per share in 1960 if we had not gone a long way toward maximizing future growth.

We intend to maintain this reasonable balance. To maintain satisfactory earnings in a highly-competitive market-place, our emphasis will be on continuing cost reduction, primarily through automation. Automation, incidentally, has been going on at IRC for many years. We design our own equipment, which is also the basis for all of our licensee operations, both in this country and abroad. We understand automation of our products in our fields, and we do this ourselves, so we don't have to go outside with these particular engineering problems.

We shall preserve profit margins through the launching of new products in increasing numbers and through expansion of our foreign-licensee operations.

In summary — IRC has a will to grow and a plan to facilitate this growth.

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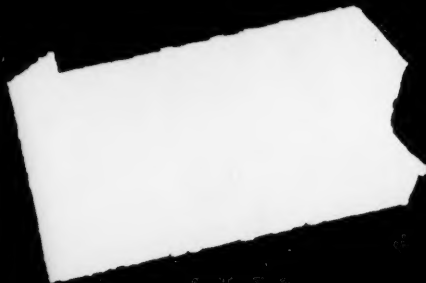
More resources . . . more industrial skill and know-how . . . more waiting markets . . . more outstanding transportation facilities, including the St. Lawrence Seaway. Michigan is a productive state with plenty of room and opportunities for additional productive industry.

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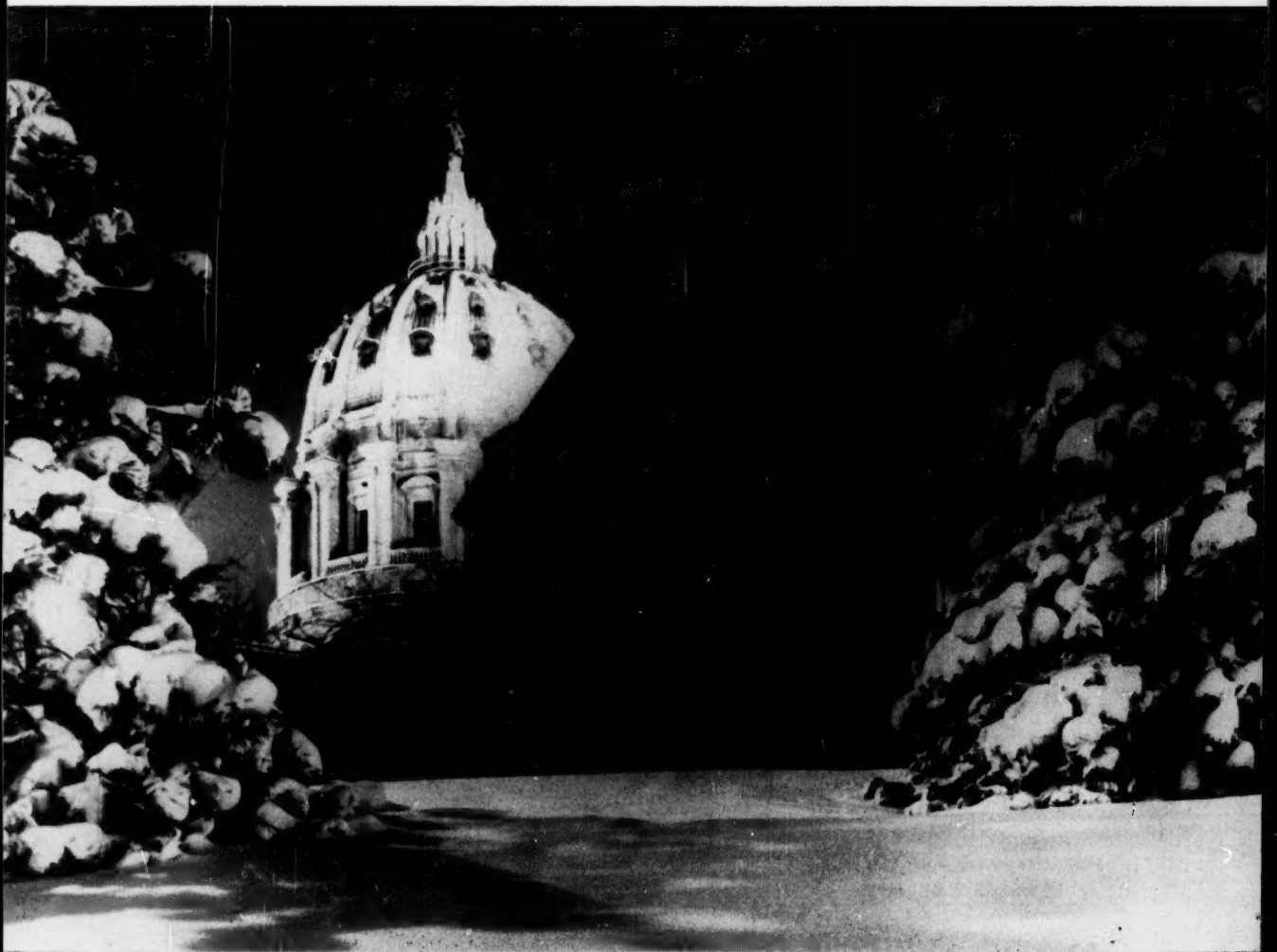
MICHIGAN CONSOLIDATED GAS COMPANY

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PENNSYLVANIA



PENNSYLVANIA: SOLID



The massive dome of Pennsylvania's Capitol at Harrisburg dominates a long stretch of the Susquehanna. The city, located where the chief river of the state crosses the Great Valley, is a major route focus and the natural spot for the capital.

FOUNDATION OF AMERICAN INDUSTRY

In the three years since ID last looked at Pennsylvania, the transformation of city and countryside has quickened its pace. Retaining the solid advantages on which it grew to greatness, the state has built hundreds of new plants, torn down slums, and added to its attractiveness as a place to live.

By Frank H. Stedman

The weather may have had something to do with it. It was, after all, a beautiful September day. But it was hard to believe that what we were seeing was actually Pottsville and Tamaqua, in Pennsylvania's Southern Anthracite Field, dimly remembered from a trip on a raw, gloomy day early in April, 1938. The sprinkling of new plants; the widespread repainting and renovation of houses, stores, schools, and churches; the surprising inconspicuousness of old culm banks, now that most of them are forested; the relative tidiness of anthracite mining as it is now practiced — all of these things have transformed a once-grim area and demand that we throw out our preconceived notions about "depressed areas" and take a fresh look.

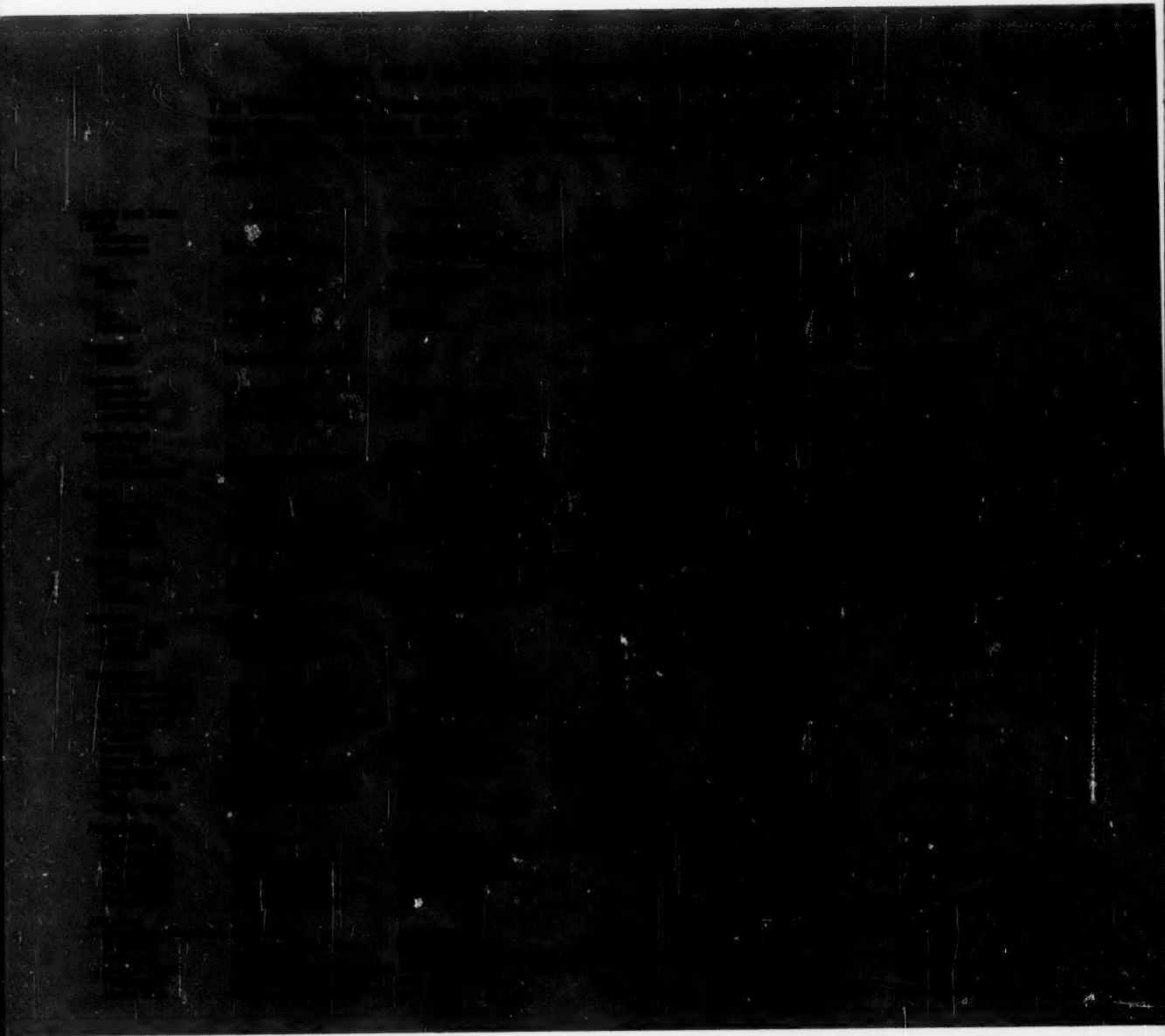
Pennsylvania has a natural bias toward beauty that richly rewards any efforts to make things attractive. And the gradual blending of many vigorous ethnic strains — English Quakers, Pennsylvania Dutch, Welsh, Scotch-Irish, Italian, Yugoslav, Ukrainian, and Polish — has produced an

enterprising spirit that makes its own opportunities. The result is very far from what viewers-with-alarm portray.

Pennsylvania in fact is a laboratory where some extremely meaningful and exciting adaptations to technological change are being worked out. Pennsylvania's turnpike is the forerunner of the nation-wide Interstate Highway System. The state is the most notable center of community and state industrial financing groups. It has some of the most striking and efficient new industrial parks in the country, and has made history in urban renewal. The current tax structure is regarded by manufacturers as enlightened and the state administrative structure as efficient. The way is clear for progress.

Favorable Start

Fortune smiled on the early settlement of Pennsylvania, delayed as it was for three-quarters of a century after Jamestown. The advantage of the experience of the earlier colonies, the sterling qualities of Penn's Quakers, the friendly relations



he established with the Indians, and the favorable soil and terrain of southeastern Pennsylvania all conspired to give the colony a good send-off.

Philadelphia quickly became a considerable city, and soon surpassed New York and Boston to become the largest in Colonial America, as befitted a city with a richer immediate hinterland than any of its rivals. It retained its position until New York was able to capitalize on easier access to the continental interior.

Meanwhile, the Palatine Germans — among the world's best farmers — began coming early in the 18th century and the adventurous Scotch-Irish

came to seek out a new world of their own on the frontier.

By the middle of the century, it was obvious to both the French and the British that the key to control of the whole continental interior was the point where the Allegheny and Monongahela unite to form the Ohio, and so began the struggle for Fort Duquesne. After the French lost out, the colonists began to pour into the area, only to find that the British authorities now thought better of allowing them to go where they liked in the New West, stirring up the Indians and disrupting the fur trade throughout the area.

Industry Gets Going

After the Revolution the westward movement resumed, with Pittsburgh as the outfitting point rather than the goal. Manufacturing, which had begun in colonial times and had expanded during the Revolution, now started up west of the mountains as well, to supply the needs of the pioneers.

As the 19th century advanced, Pennsylvania became one of the most heavily industrialized states in the nation. Textile mills sprang up on small power sites in the east, and iron working from widespread local ores and native charcoal became commonplace.

Other early industries with a base in local resources were tanning with local bark, lumbering and paper making, brewing and other food industries, glass and pottery from local sands and clays, and the oil industry, which started in Pennsylvania and was long localized there.

Later on came the transition to steel made in a relatively few large plants from Pennsylvania bituminous coal and limestone and high-grade ores brought in from the Upper Lakes States, though some local ore is still used.

By 1900 Pennsylvania was the ranking state in heavy industry, with the great bulk of the steel

PENNSYLVANIA

industry, and second only to New York for light industry, as well as being the leading mining state.

The state today can point to solid advantages attending its long industrial history. On the plus side are the great complexity of structure that tends to evolve in a long-established industrial economy, as suppliers, by-products users, and fabricators grow up alongside large basic plants. Another factor is the extremely diversified pattern of labor skills, many of them inherited through several generations, and the correspondingly varied managerial skills. Almost any kind of plant could be staffed exclusively with people now living in Pennsylvania, from top management to assembly line.

SUMMARY

NEW INDUSTRIAL PLANTS & EXPANSIONS ANNOUNCED IN PENNSYLVANIA — 1956-1959

Total: New Industrial Projects	1,918
Manufacturing	1,567
New Operations	780
New Plants	389
Idle Plants Reoccupied	391
Expansions	787
Factory Additions	630
Basic Steel Facilities	54
Idle Plants Reoccupied	103
Other Industrial Facilities	294
Industrial Research Laboratories and	
Engineering Facilities	77
Distribution Warehouses and Factory Storage	
Facilities	217
Public Utilities, Railroad and Mining Companies	
Announcing Major Facilities Projects	57
Planned Employment (Mfg.)	106,946
Other	9,361
	116,307

Source: Research Division
Bureau of Industrial Development
Pennsylvania Department of Commerce

Underground Wealth

Pennsylvania is classic ground to American geologists, as Wales is to the Europeans. Rocks of almost every geologic period are exposed in the state, but the bulk of it is underlain by Paleozoic sedimentaries, most notably the coal measures that prompted American geologists to use the term "Pennsylvanian" for what the Europeans call "Upper Carboniferous."

The great trough in which thick beds of sand, clay, mud and swamp vegetation were laid down through most of Paleozoic time was widest and deepest in central Pennsylvania. When the trough was folded and compressed into mountains at the end of the era, the original Appalachians thus formed must have rivaled or even surpassed the present-day Himalayas.

Worn down almost to a plain by millions of years of erosion, the roots of the mountains were

later uplifted slightly and streams etched out the weaker limestones and shales of the folds, leaving the harder sandstones as ridges. Thus came into being the remarkable succession of even-crested Appalachian ridges and intervening narrow valleys that cross the state from Easton and Stroudsburg in the east to Bedford and Greencastle along the southern border.

Travelers westbound on the Pennsylvania Railroad are familiar with Horseshoe Curve west of Altoona, where the line can no longer thread its way between ridges and valleys but must climb the steep-sided Allegheny Front in a wide-swinging curve. From here on they are in the Allegheny Plateau of western and northern Pennsylvania, which is deeply cut by streams and hence far from level, but which has nearly level beds of rock outcropping over vast areas. Here lie the coal seams, some of them thick and unbroken through county after county, which brought the United States into the first rank as a great industrial power.

East of the mountains are the very old and complicated rocks of the Piedmont, long since worn down to a low plateau with gentle slopes. This area includes most of the best agricultural land in the state, and contains many small deposits of metallic ores once of great significance to local industry.

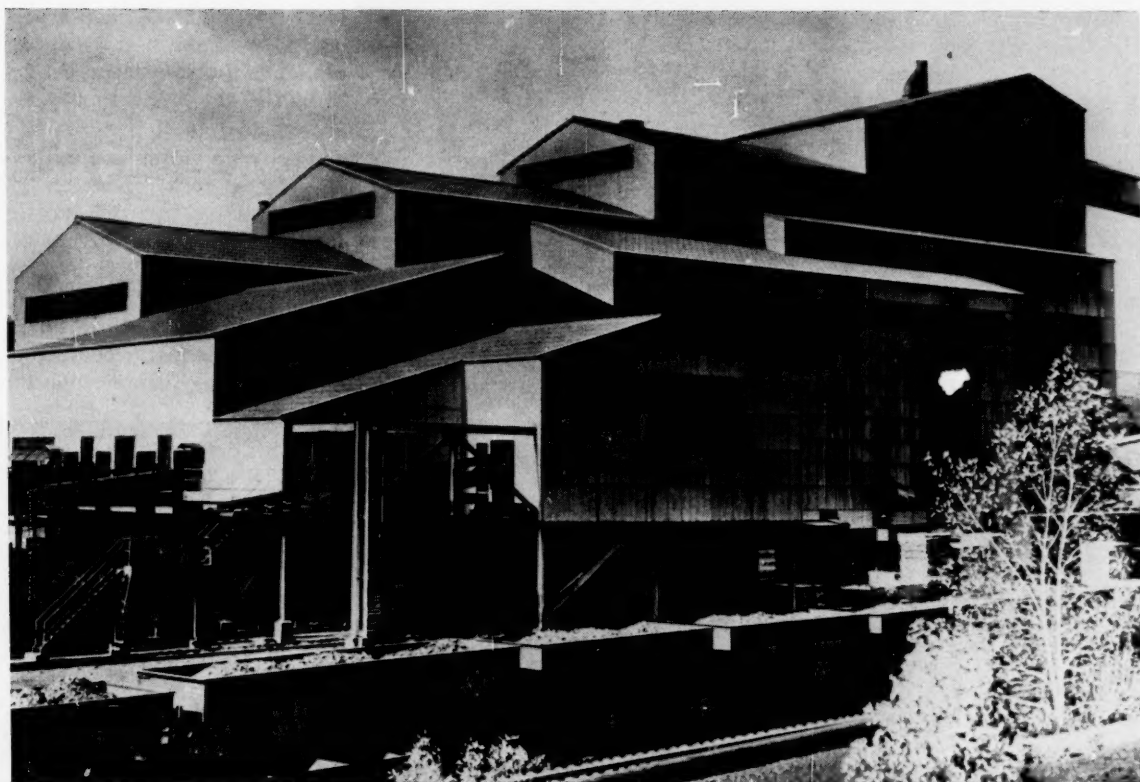
Coal Is King

Pennsylvania generally ranks fourth nationally in value of its mineral production, and still ranks first — as it has from the earliest records — for minerals other than petroleum and natural gas. In most recent years the value of minerals produced in the state has exceeded a billion dollars.

Bituminous coal, in which Pennsylvania ranks second after West Virginia, is by far the biggest single item. The Pittsburgh seam, which has supplied a huge share of the nation's coking coal through the years, is still yielding millions of tons a year, mainly from Greene and Washington counties in the southwest corner.

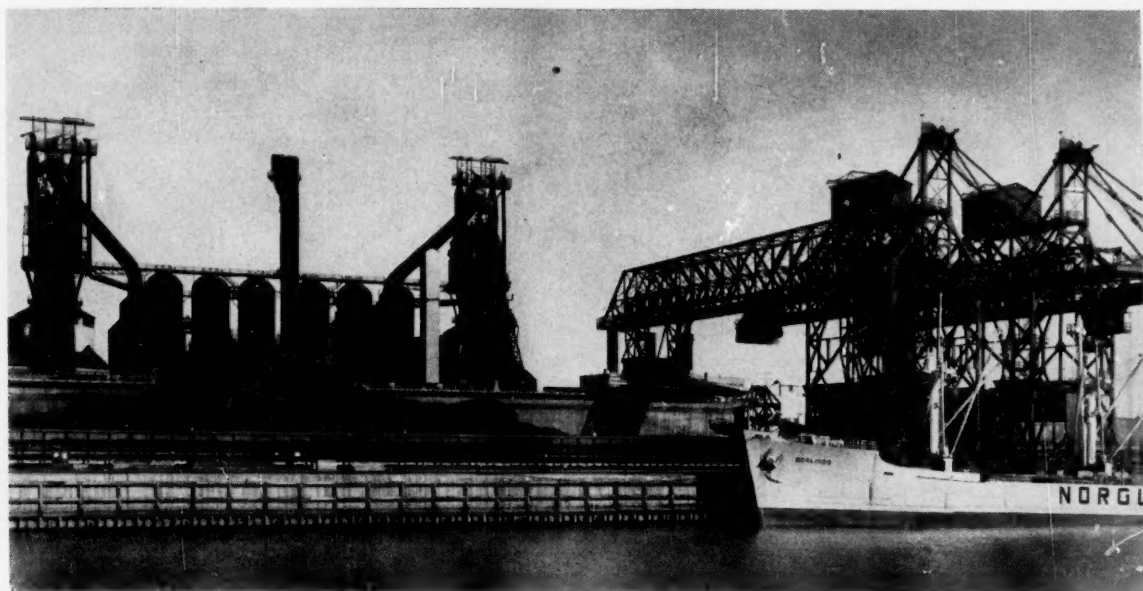
Recent coal production has been between 65 and 85 million tons annually. Although mining has been going on for two centuries and reached a million tons a year as long ago as 1845, reserves in beds more than three feet thick are in excess of 10 billion tons and total reserves amount to nearly 50 billion tons.

More than two-thirds of the coal mined in 1958 came from underground workings, and the remainder mostly from strip mining. Thin seams



↑ Much of the state's anthracite is in very thick seams which justify such massive structures as this coal breaker near Scranton. Mechanization has reached an advanced stage in the industry, though small operators still survive.

↓ The Fairless Works of U. S. Steel has revolutionized the economy of Bucks County, which has doubled in population since 1950. Iron ore from Venezuela and Quebec is taken off ore carriers which now come up from Philadelphia partially loaded but will eventually come all the way with a full load.



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without too much overburden supply some of the stripping output and auger mines working in from hillsides also make use of thin seams. By these methods a considerable share of the large reserves in seams less than two feet will prove to be recoverable.

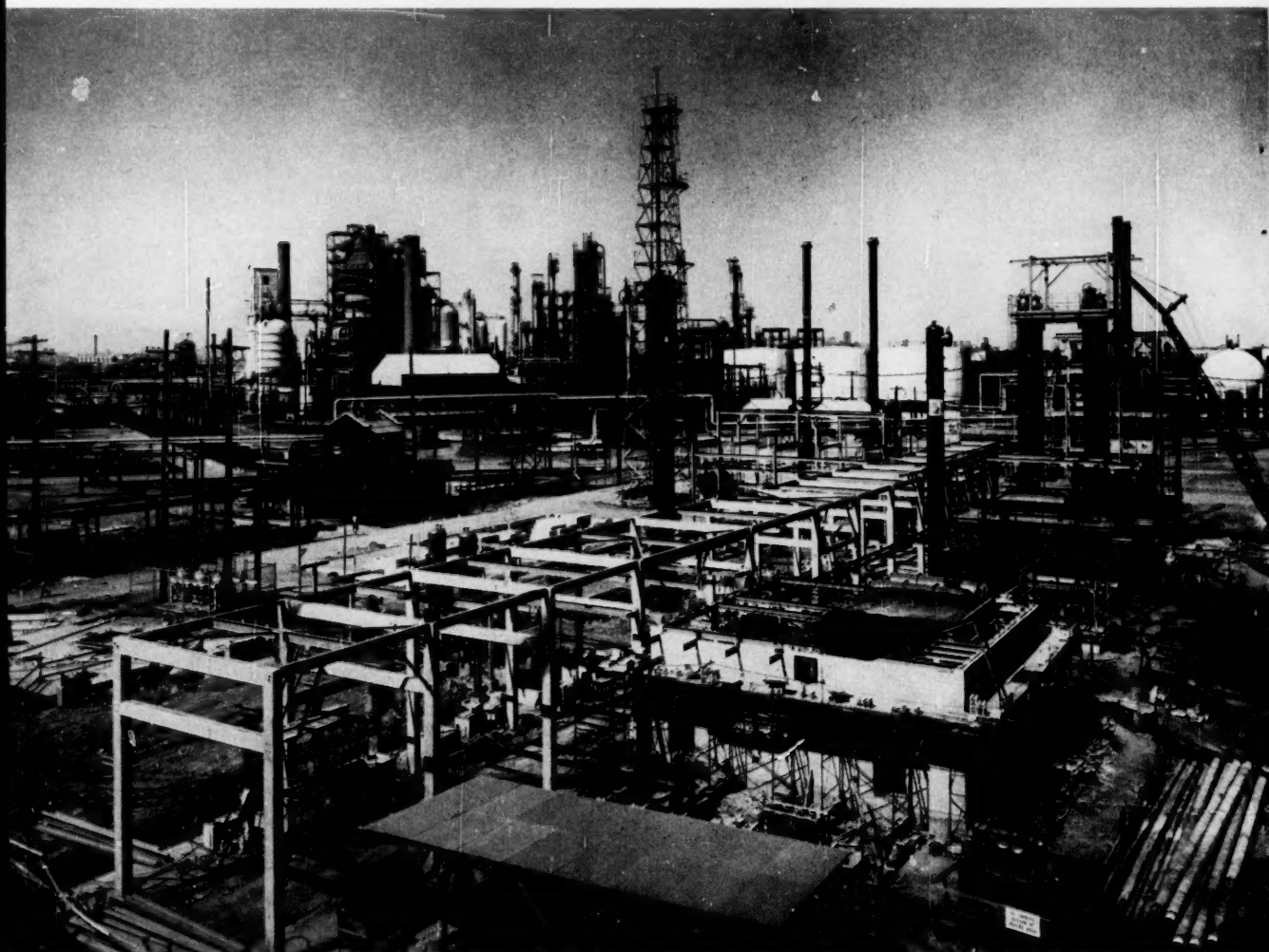
Other leading coal producing counties are Cambria, Indiana and Clearfield in the west central part of the state, and Allegheny (Pittsburgh). Clearfield County is the leading county in strip mining.

Anthracite coal has always been a Pennsylvania monopoly and is still mined at the rate of 20 million tons a year, and reserves are on the order

of 15 billion tons. It continues to command a premium price as compared with the best grades of bituminous. Schuylkill and Luzerne counties account for more than half of the production.

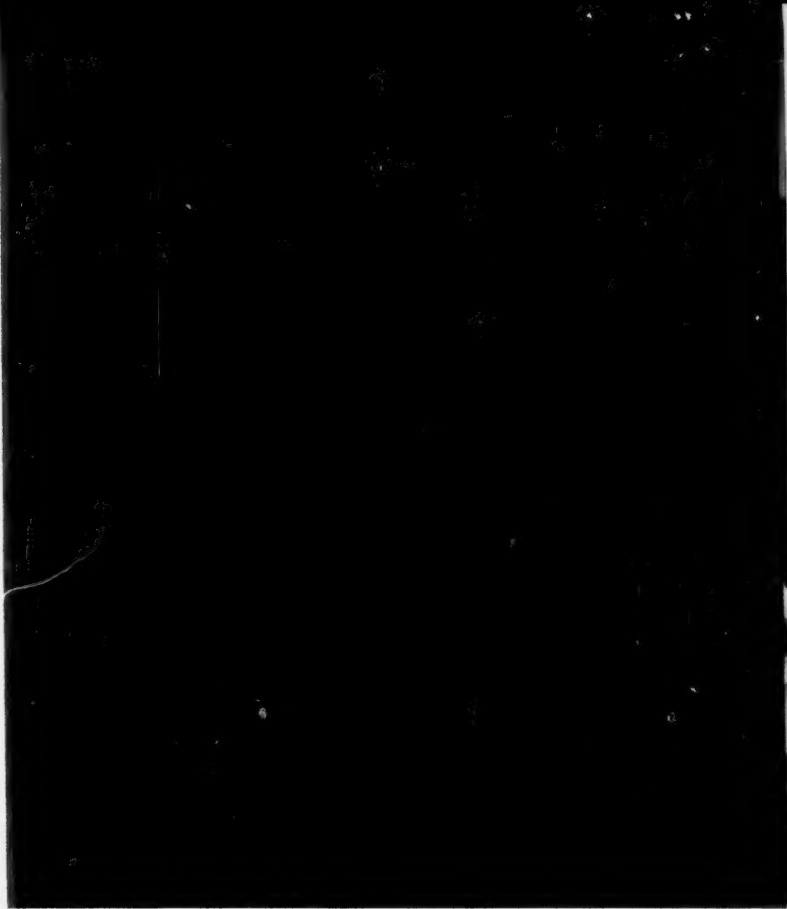
Pennsylvania has inexhaustible supplies of limestone, including both very pure grades and the impure grade known as "cement rock" on which the huge Lehigh Valley cement industry has grown up. Cement ranks third among the state's mineral industries, and stone, much of which is limestone, ranks fourth.

A century after Drake's well at Titusville, Pennsylvania still figures in the oil industry because of the peculiar suitability of Pennsylvania crude for



The lower Delaware rivals the Gulf Coast of Texas as a center of oil refineries. Land formerly owned by the City of Philadelphia was released to enable Gulf to add a \$40 million petro-chemical development to its facilities. Part of the new plant is shown under construction.

Poultry products rank second only to dairying as money-makers for Pennsylvania farmers. Lancaster County is among the leading counties in the country for poultry and eggs. Note the survival of traditional architectural forms — the big barn resembles the early monastery building shown on page 44.



lubricating oils. The 1958 production of 6.7 million barrels came mostly from the Bradford-Allegheny field near the New York state line.

In 1959 natural gas production was 99 billion cubic feet, and the state ranked eleventh as a producer. Since the amount consumed was 502 billion cubic feet, there was a net import of 403 billion cubic feet.

This does not exhaust the list of Pennsylvania's mineral resources. Iron ore has been produced for centuries, and the sole survivor of the early mines continues to operate at Cornwall in Lebanon County. Bethlehem Steel recently opened a second mine at Morgantown in Berks County to exploit a large underground ore body, previously unknown. Concentrators at Lebanon and Morgantown process the ore before shipment to the blast furnaces.

The state is also a major producer of clays of various types, including fire clay, and of glass and molding sands as well as of ordinary grades. Ample supplies of local raw materials have played a big part in making Pennsylvania the leading state in glass and ceramics.

Four Seasons

Pennsylvania has a somewhat milder and more moist climate than the average for the northeastern quarter of the country. July mean temperatures range from the middle seventies in Philadelphia and Pittsburgh to the middle sixties in higher elevations in the northern part of the state. January temperatures average slightly over freezing in the southeast and southwest and in the low twenties along the northern border except near Lake Erie, where it is four or five degrees warmer.

Rainfall ranges between 33 and 50 inches, the highest figures being limited to the mountains. Snowfall ranges from 60 inches in the Poconos and the heights back of Lake Erie to less than 30 inches in the south.

The winters are cold enough at higher elevations in the mountains to have spawned a host of winter sports areas and many of these same spots are attractive summer retreats.

"Milk and Honey"

Ever eat any Philadelphia ice cream? If so, you will not need to be told that Pennsylvania has a great dairy industry, fourth nationally, in fact. It

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also ranks fourth in egg production, with an output of nearly 4 billion eggs.

Farm production in 1958 totaled \$785 million, with leading components as follows:

	\$ million
Dairy products	304.0
Eggs	125.5
Cattle and calves	95.6
Broilers	30.2
Hogs	24.8
Farm chickens	11.9
Turkeys	7.6
Total livestock (including other items)	606.8
Wheat	20.0
Corn	16.6
Potatoes	14.4
Tomatoes	9.3
Tobacco	8.6
Hay	6.9
Total crops (including others)	96.2
Apples	10.8
Peaches	5.4
Total fruits and nuts	22.7
Greenhouse and nursery	53.5
Forest products	5.6

In the same year, Pennsylvania ranked 14th nationally in value of farm production despite the fact that 21 states have a higher harvested acreage. Since most of the state's corn, oats and hay

are marketed in the form of livestock products the value of crop production looks low. Actually, the state produced grain and other field crops valued at \$312 million in 1959.

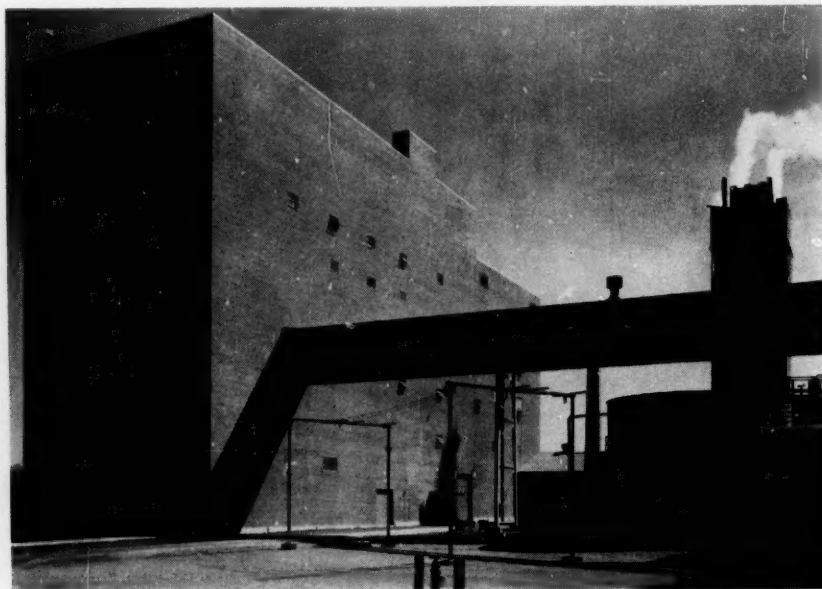
The Southeast, notably Lancaster, York and Berks counties, and the Lake Erie shore in the northwest are the most productive areas. Lancaster County leads in corn, wheat, potatoes and hay and produces nearly all the state's tobacco. It is also the leader in numbers of cattle, hogs and chickens and in milk and eggs produced. The thrifty and hard-working Pennsylvania Dutch farmers, combined with naturally fertile soil, have made the county a by-word for productivity and account for its position as the ranking agricultural county outside of the irrigated areas of California and other western states.

Hardwood Empire

Timber conservation in Pennsylvania dates back to Gifford Pinchot early in the century. Sustained-yield production is now the order of the day, and 21 per cent of the forested area is publicly owned.

With 52 per cent of its area in commercial forest land, the state led the nation in its net volume of hardwood growing stock in 1952; it had 9.6 billion out of a national total of 162 billion cubic feet of commercial species. By no means all of its softwoods have been removed, but stands are relatively small as compared with hardwoods.

More than half of the state's forest resources are found in 23 counties extending in a south-to-north



Hammermill's big paper mill in Erie makes bold patterns of light and shadow that would delight a cubistic painter. Pennsylvania is a major producer of paper from both domestic and imported pulp.

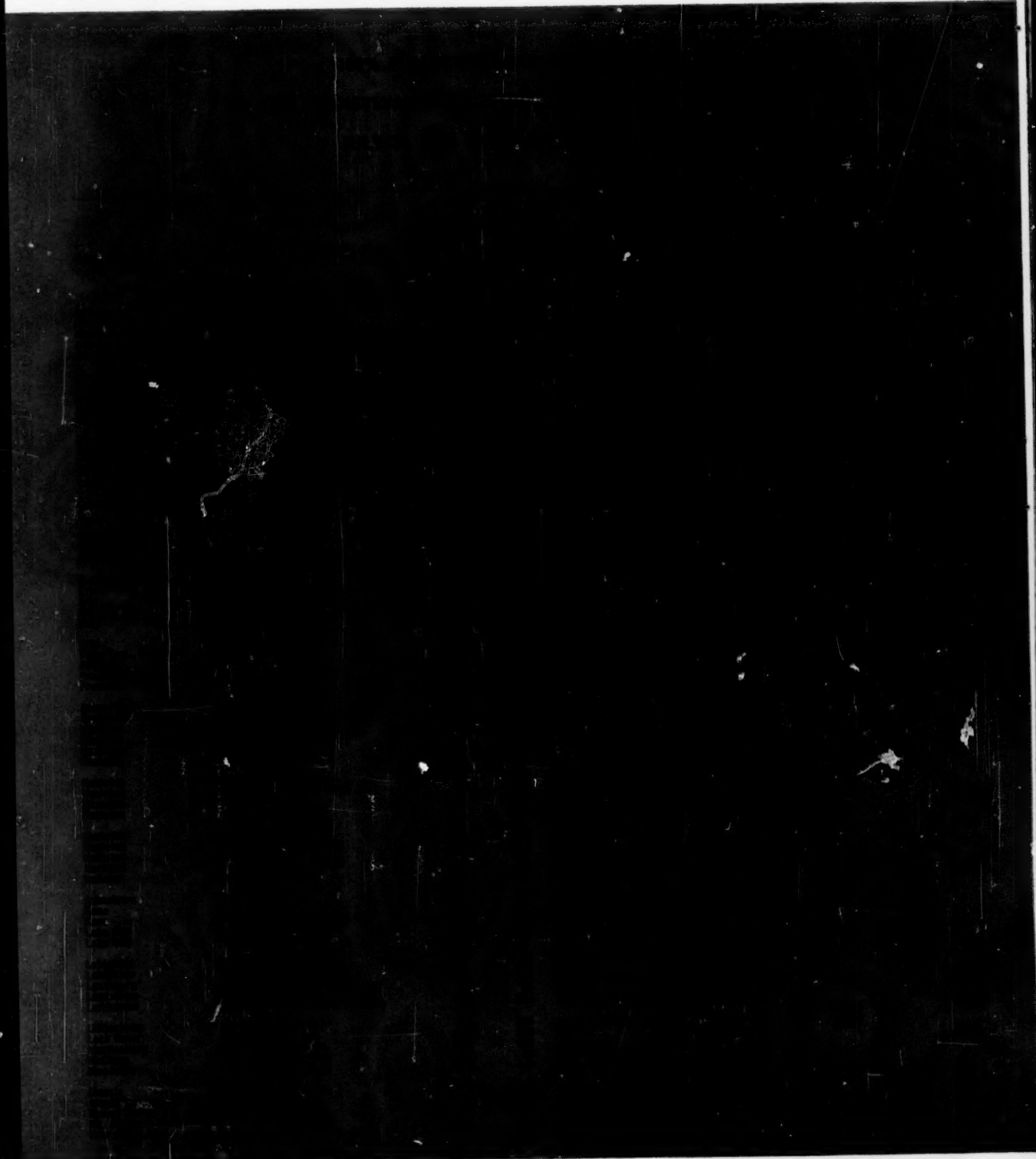


↑ Hershey's Chocolate works near Harrisburg, a major consumer of Pennsylvania milk, has given rise to a varied industrial and philanthropic empire including a famous golf course, an amusement park and a museum.

↓ Western Electric's plant at Allentown is a leading employer in that area. The new addition of 350,000 square feet brings the total area of the plant to 790,000 square feet.



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belt across the state through Williamsport and broadening out northward to include most of the northern border. Leading species within this belt include white, red and chestnut oaks, red and sugar maples, black cherry, beech and hemlock.

Timber cut from commercial forest land in 1954 amounted to 154 million cubic feet, of which 132 million were hardwood and 22 million were softwoods. Sawlogs accounted for 105 million cubic feet and pulpwood for 24 million, while 25 million went to other uses.

Williamsport is the natural center for a great deal of the forested area and went through a Paul Bunyan period late in the last century when white pine was the leading timber resource. It continues to be a center for lumbering on a sustained basis and for furniture and other industries.

Much of the value of the state's forested areas is in their use for recreation and as watersheds for the major streams.

All The Water You Need

Pennsylvania is in an extremely favorable situation with regard to water supply. Receiving an average of 42 inches of rainfall evenly distributed throughout the year, the state has lower than average evaporation, especially in the summer, and excellent gathering grounds in the 52 per cent of its area under forest cover. It has the further advantage that all three of its major streams, the Delaware, Susquehanna and Ohio, and of course Lake Erie as well, receive large increments of water from other states that is available for use in Pennsylvania.

Minimum flows of 400 cubic feet per second are encountered on the Delaware almost as far up as Milford, on the Susquehanna just below Towanda, and on the Allegheny at Franklin. The absence of water shortages has made reservoir construction for storage purposes largely unnecessary, even though favorable sites exist. Reservoirs have been built in a number of western streams for flood control, and the danger of severe flooding on the upper Ohio has been removed.

Quality of the water over large areas is highly favorable, especially in areas underlain by sandstone and shale. Pennsylvania has been a leader in the "clean streams" program and dramatic improvements have been made in many places where seepage from coal mines or industrial wastes had previously been a problem.

Underground water is available in notably large

quantities in the sands and gravels of glacial stream beds of the northern part of the state. Large yields are also obtained from wells encountering major solution channels in some of the older limestones, and moderate amounts are found in the extensive sandstone areas.

Main Line

The statewide main line of the Pennsylvania Railroad, which is electrified as far west as Harrisburg, is the dominating feature of the state's rail pattern. For decades it has been one of the most heavily traveled rail routes of comparable length in the world.

The Reading Railroad ties the industrialized Susquehanna Valley, the anthracite region of the northeast and the Pennsylvania Dutch country of the southeast to the ports of Philadelphia and New York.

Other rail lines bearing notably heavy traffic are the short stretch of the New York Central's main line along Lake Erie, the B & O's main line across southwestern Pennsylvania, and the lines bringing iron ore from Lake Erie ports to Pittsburgh and other steel centers, such as the Erie branch of the Pennsylvania, the Bessemer and Lake Erie, the Pittsburgh and Lake Erie and branches of the B & O and the Erie.

The anthracite region is also served by the Lackawanna, Lehigh Valley, Central of New Jersey, Lehigh and New England and the Delaware and Hudson. Small but important lines serving the main bituminous area are the Monongahela, the Pittsburgh and Shawmut and the Pittsburgh and West Virginia.

The Pennsylvania Railroad has an extensive network of branches serving all parts of the state, as does the Reading in the eastern half. Branches of the New York Central, the B & O, and the Erie and a part of the Nickel Plate's main line are locally important in the north, while the Western Maryland's main line serves part of southern Pennsylvania.

Four "push-button" yards and 400 miles of centralized traffic control (C.T.C.) installed since the war show the importance that the railroads attach to providing modern automatic facilities. "Piggy-back" facilities are being steadily extended and many of the lines make use of specialized equipment for carrying bulk loads.

First to feel the effects of the current round of rail mergers are the Erie and Lackawanna, which have begun operations as a single system.



↑ Pittsburgh's Golden Triangle, where the French and British fought a backwoods war two centuries ago, later became the headquarters for a large part of American heavy industry and is now undergoing a face-lifting that has attracted world-wide attention. The final stages involve the removal of the two old bridges at the Point. Note the almost complete absence of smoke!

↓ Philadelphia Electric's 364,000-kilowatt Southwark generating station dominates the South Philadelphia waterfront. Modernization of port facilities, new bridges and expressways and extensive urban renewal projects near the waterfront promise more efficient handling of the millions of tons of cargo handled at Philadelphia every year.



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Super Highways Started Here

Pennsylvania has been in the front line of advanced highway construction since the building of the Pennsylvania Turnpike in the Thirties. The Interstate System will provide the state with a remarkably complete network of limited-access roads.

The main line of the present turnpike, designated 80S, will have a companion route through the center of the state numbered 80 which will open up much new territory to industrial expansion and will form the shortest connection between New York and Chicago.

Diagonally across the state generally parallel to the present US 11 will run the new Interstate 81, while the new 95 will follow US 1 along the lower Delaware. Route 79 will connect Pittsburgh with Erie and Route 90 will follow the shore of Lake Erie.

Another major transcontinental route serving the state is Route 70, generally following the old National Pike from Baltimore to Pittsburgh and St. Louis; it will enter Pennsylvania to cross the

mountains via the Turnpike.

Other interstate branches are Route 83 from Harrisburg to Baltimore, Route 78 from Harrisburg to Easton, and Route 84 from Scranton to southern New England.

The completion of the Interstate System will make Harrisburg the center of six routes and Scranton/Wilkes-Barre of five, while Pittsburgh and Philadelphia will both have four routes, counting existing branches of the Turnpike.

The state is also interested in the improvement of US 6 across the northern tier of counties. This would round out a complete system of expressways serving all parts of the state with no communities more than 50 miles.

The state is a major center for trucking operations, with a great many local carriers and hordes of trucks in transit from other states. Overnight deliveries to most major cities of the Northeast and Middle West are feasible from most parts of the state. Many of the trucks make use of the extensive network of secondary roads as well as the expressways.

The Pennsylvania Turnpike, shown here at the Fort Washington interchange, started a new era in American transportation. Industry has been quick to realize the enormous value of sites near interchanges in attractive suburban country. The Fort Washington Industrial Park is a case in point.

Convenient Air Service

Air transport in Pennsylvania naturally centers on Philadelphia and Pittsburgh, both of which have recently completed terminals where non-stop or one-stop connections are available to large cities all over the continent.

Scheduled service is maintained by 13 passenger lines and three freight lines as shown in the following table, in which the numbers are used as a code for the airline:

Allegheny Airlines, as the above table indicates, serves by far the largest number of communities, with commuter-type runs from the smaller cities to Philadelphia and Pittsburgh and beyond to New York, Boston, Detroit, Cleveland, Washington, Baltimore and other marketing and industrial cities of the Northeast.

Two hours of driving are sufficient to reach a point with scheduled service from almost anywhere in the state. Company and other private aircraft can be accommodated at airports serving about 100 additional communities.

Bulk Shipments by Water

Navigable waterways have played a dominant role in determining where much of Pennsylvania's heavy industry — and hence much of its population — is located. The deepwater frontage on the lower Delaware has been lined for years with one of the most impressive assemblages of industrial plants found anywhere in the world. The lower Monongahela and Allegheny and a long stretch of the upper Ohio are equally impressive, especially at night when the glow of blast furnaces and open hearths can be seen for miles. More recent and now entering on a stage of development

is the port of Erie, which fronts directly on the St. Lawrence Seaway.

The Port of Philadelphia is undergoing a transformation both within the older areas and upstream past the huge U. S. Steel plant at Morrisville to Trenton, where channel deepening is in process. The Delaware River from Trenton downstream is easily the second port of the country, with coastwise and foreign tonnage totalling 115 million in 1957, as compared with 187 million for the Port of New York and 81 million for the Hampton Roads ports.

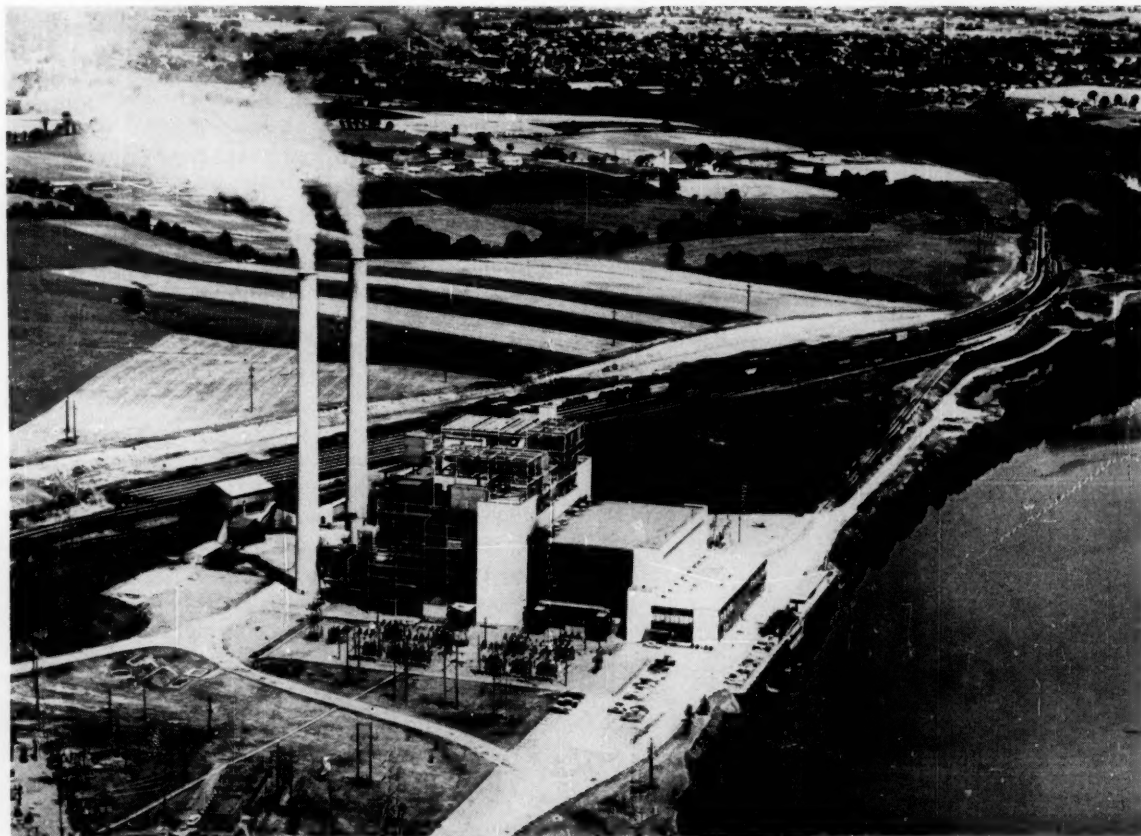
By 1964 the channel will be 40 feet deep as far as Morrisville and 35 feet from there to Trenton. Three general cargo terminals in Philadelphia itself — one completed and two planned or in process — will provide expanded and completely modern facilities to supplement the miles of piers and wharves already in use.

Erie, which has a harbor almost enclosed by a huge sand spit on which a state park has been developed, has the best natural harbor on Lake Erie, and the channel is being deepened to 27 feet



The Duquesne Marine Terminal's two cranes give it a lifting capacity equal to any on the Great Lakes. The Erie Port Commission has put Pennsylvania's only lake port in a strong position to attract its full share of Seaway traffic.

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One of the notable attractions of southeastern Pennsylvania is the interweaving of productive farmland, industry and towns. Philadelphia Electric's Cromby station, with capacity of 385,000 kilowatts, is on a quiet bend of the Schuylkill near Phoenixville.

to accommodate Seaway traffic. Last year its new marine terminal with an 80,000-square-foot warehouse and a 135-ton gantry crane was opened and future plans include a 200-ton crane. The Interstate Highway connecting with Pittsburgh will greatly improve access to the port.

All of the Monongahela and the Ohio within Pennsylvania are navigable, as is the Allegheny upstream 72 miles from Pittsburgh to Brady's Bend. In recent years commerce at the Port of Pittsburgh has exceeded 50 million tons, the bulk of it coal moving down the Monongahela to the steel mills.

In the last 10 years, no less than seven independent river-rail-truck terminals have been built along the three rivers. Most of the large interstate barge lines serve these terminals. Long-distance bulk shipments are increasingly common, involving all parts of the Mississippi-Ohio-Tennessee-Missouri system and the Intracoastal Ca-

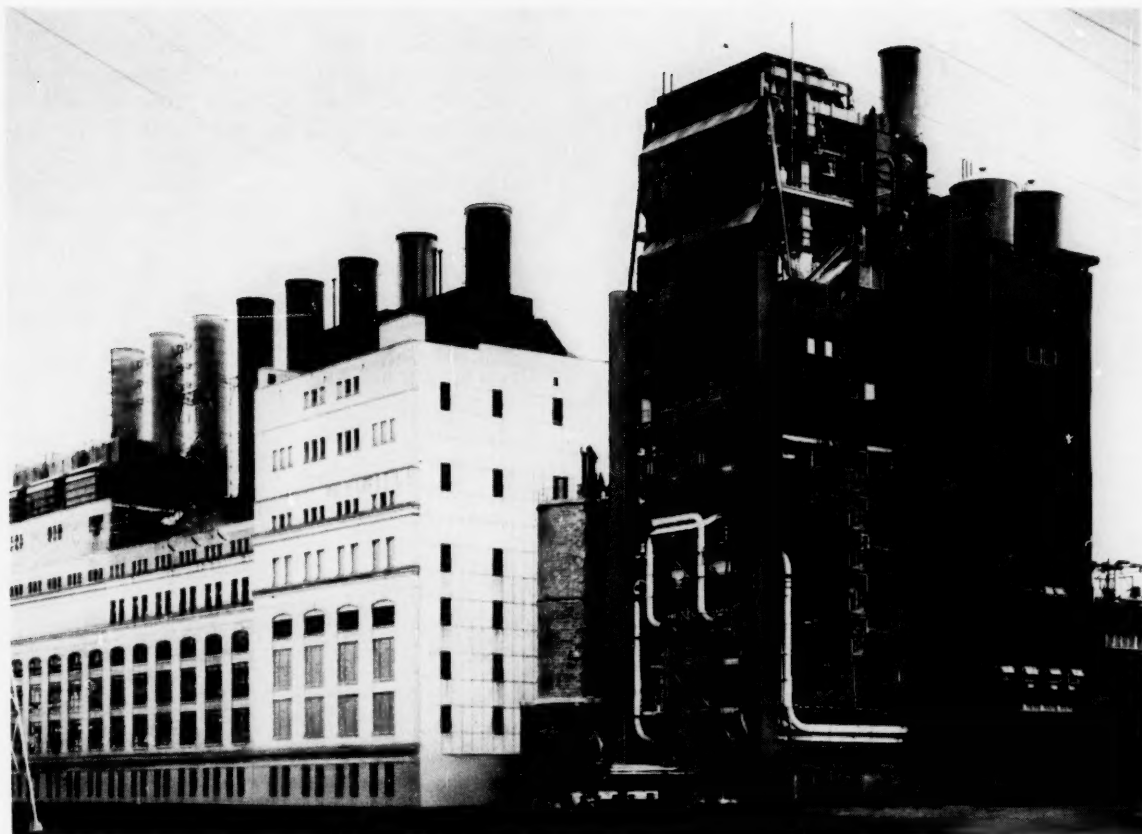
nal as far as Texas.

Power to Spare

Electric generating capacity in the state now totals 9 million kilowatts, most of it thermal, although hydroelectric plants on the lower Susquehanna and elsewhere supply 435,000 kilowatts. The nation's first large-scale atomic generating plant at Shippingport has been in operation since 1957.

Seven privately owned utilities supply most of the state, the chief exception being industrial plants generating their own power. These account for one-sixth of the total generating capacity.

The largest utility, in terms of capacity and number of customers, is Philadelphia Electric, which serves most of the state within 40 miles of Philadelphia. The next largest is Pennsylvania Power and Light, which serves much of the northeastern quarter of the state plus Harrisburg and



Currently the largest power plant in the state outside Philadelphia, the Springdale plant of West Penn Power is 20 miles upstream on the Allegheny from Pittsburgh. Its capacity is 431,000 kilowatts.

Lancaster; Allentown is its headquarters.

The third largest is Duquesne Light serving Pittsburgh and the upper Ohio valley. Next largest in capacity is West Penn Power, with headquarters in Greensburg; it serves the southern and eastern parts of the Pittsburgh metropolitan area and an isolated area from Ridgway in the northwest to Bellefonte in the center of the state.

Most of the rest of western Pennsylvania is served by Pennsylvania Electric, with its main office in Johnstown; from Erie it serves two bands across the state — one southeast past Altoona to Shippensburg and the other eastward along the northern border.

The other leading companies are Metropolitan Edison and Pennsylvania Power. The former is a sister-company to Pennsylvania Electric in the General Public Utilities System; it is centered in Reading and York and has an outlying area around Easton. The latter is a part of Ohio Power,

and hence of the American Electric Power system; it serves the New Castle-Sharon-Greenville area along the Ohio line.

Interconnections between the systems and with those in other states, constant expansion of capacity and distributing facilities, and unlimited coal supplies assure users of reliable service at reasonable rates.

The major gas distributing companies are United Gas Improvement and Philadelphia Electric in the east and Equitable Gas, Manufacturers Light and Heat and Peoples Natural Gas in the Pittsburgh area.

United Gas supplies natural gas to the Lehigh Valley and the Reading, Harrisburg and Lancaster areas and operates the municipally-owned manufactured gas system of Philadelphia. Philadelphia Electric furnishes mixed gas to the suburban areas.

All three of the Pittsburgh-based companies

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market natural gas within that city and their services overlap in a number of the nearby counties. Manufacturers Light and Heat has somewhat larger sales than the other two combined and is easily the largest company in the state in that respect.

Land and Buildings

The choice of sites in Pennsylvania is almost limitless, ranging from raw agricultural land to suburban industrial parks and redeveloped urban land. Undeveloped waterfront property is naturally scarce from Philadelphia downstream on the Delaware and near Pittsburgh on the three main rivers, but the Lake Erie shoreline, the middle Allegheny and the Delaware above Philadelphia are less crowded.

Sites along railroads and with connections to limited-access highways are plentiful and will be even more so as the Interstate System is extended.

A marked feature of urban redevelopment planning in Pennsylvania has been the reservation of land for industrial use. A survey of 39 projects last year showed that out of 1,182 acres involved,

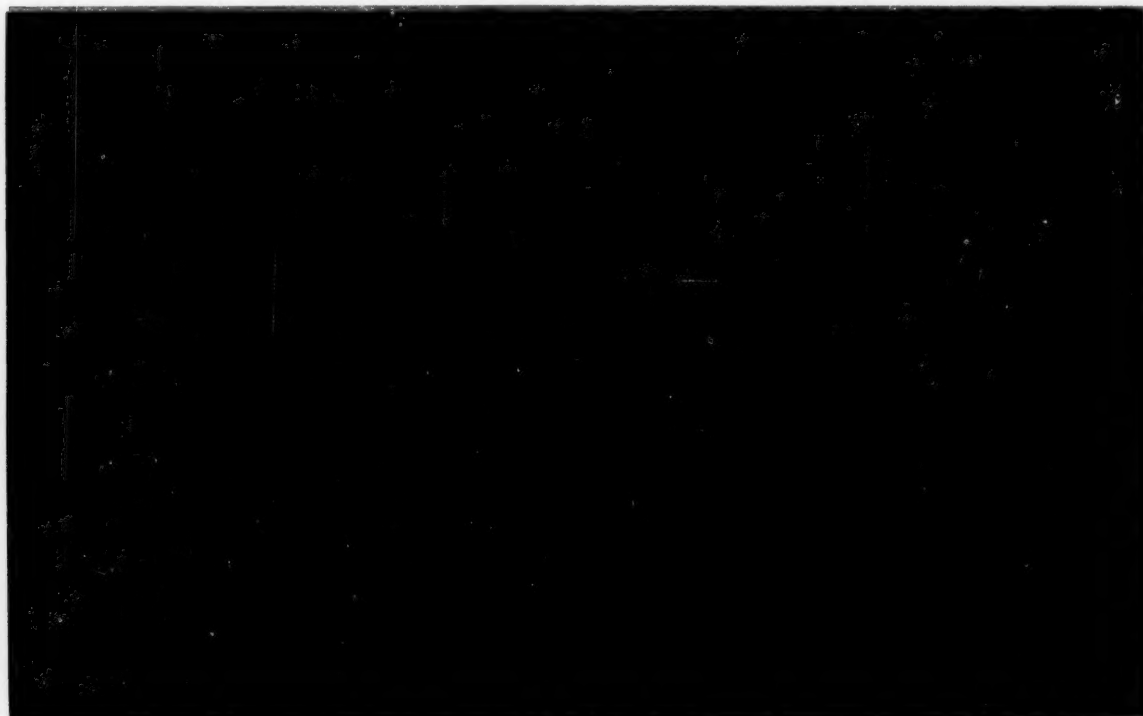
212 acres were being set aside for industrial use. Not included in the survey was the Eastwick section of Philadelphia, on the lower Schuylkill near the airport, where 800 or more acres of prime industry trial land will become available near the center of a market of 4 million people.

Much larger acreages are involved in the industrial parks which have been springing up all over the state under the auspices of industrial realtors, railroads, community industrial financing groups, and others. This year no less than 62 of these were in being, with upwards of 10,000 acres available.

The largest was the 1500-acre Crestwood Industrial Park under development by the Greater Wilkes-Barre Industrial Fund. Since the coming of Eberhard Faber as Crestwood's first tenant, such other leading concerns as RCA, Foster Wheeler and King Fifth Wheel have built plants in the area.

Labor Plentiful

Pennsylvania's population increased by seven per cent between 1950 and 1960, moving up from



Hazleton's Valmont Industrial Park is an excellent example of the vigorous community enterprise that is putting new vitality into the anthracite area and attracting dozens of new plants from all over the country. One of Valmont's occupants is a branch plant of Lone Star Boat, a Texas concern. "PIDA" financing has been utilized by companies locating in the area.

County	Organization	Address	Phone	President
Adams	Adams County Ind. Devel. Corp.	Adams, Pa.		James E. McHenry
Allegheny	Allegheny Ind. Devel. Corp.	Pittsburgh, Pa.		James E. McHenry
Armstrong	Armstrong Ind. Devel. Corp.	Armstrong, Pa.		James E. McHenry
Beaver	Beaver Ind. Devel. Corp.	Beaver, Pa.		James E. McHenry
Butler	Butler Ind. Devel. Corp.	Butler, Pa.		James E. McHenry
Cameron	Cameron Ind. Devel. Corp.	Cameron, Pa.		James E. McHenry
Carbon	Carbon Ind. Devel. Corp.	Carbon, Pa.		James E. McHenry
Cecil	Cecil Ind. Devel. Corp.	Cecil, Pa.		James E. McHenry
Chambers	Chambers Ind. Devel. Corp.	Chambers, Pa.		James E. McHenry
Clarke	Clarke Ind. Devel. Corp.	Clarke, Pa.		James E. McHenry
Columbia	Columbia Ind. Devel. Corp.	Columbia, Pa.		James E. McHenry
Dauphin	Dauphin Ind. Devel. Corp.	Dauphin, Pa.		James E. McHenry
Delaware	Delaware Ind. Devel. Corp.	Delaware, Pa.		James E. McHenry
Franklin	Franklin Ind. Devel. Corp.	Franklin, Pa.		James E. McHenry
Fulton	Fulton Ind. Devel. Corp.	Fulton, Pa.		James E. McHenry
Harrisburg	Harrisburg Ind. Devel. Corp.	Harrisburg, Pa.		James E. McHenry
Hempfield	Hempfield Ind. Devel. Corp.	Hempfield, Pa.		James E. McHenry
Huntingdon	Huntingdon Ind. Devel. Corp.	Huntingdon, Pa.		James E. McHenry
Indiana	Indiana Ind. Devel. Corp.	Indiana, Pa.		James E. McHenry
Juniata	Juniata Ind. Devel. Corp.	Juniata, Pa.		James E. McHenry
Lancaster	Lancaster Ind. Devel. Corp.	Lancaster, Pa.		James E. McHenry
Lebanon	Lebanon Ind. Devel. Corp.	Lebanon, Pa.		James E. McHenry
Lehigh	Lehigh Ind. Devel. Corp.	Lehigh, Pa.		James E. McHenry
Lycoming	Lycoming Ind. Devel. Corp.	Lycoming, Pa.		James E. McHenry
Mechanic	Mechanic Ind. Devel. Corp.	Mechanic, Pa.		James E. McHenry
Monroe	Monroe Ind. Devel. Corp.	Monroe, Pa.		James E. McHenry
Montgomery	Montgomery Ind. Devel. Corp.	Montgomery, Pa.		James E. McHenry
Morris	Morris Ind. Devel. Corp.	Morris, Pa.		James E. McHenry
Mt. Vernon	Mt. Vernon Ind. Devel. Corp.	Mt. Vernon, Pa.		James E. McHenry
Nantuxet	Nantuxet Ind. Devel. Corp.	Nantuxet, Pa.		James E. McHenry
Northampton	Northampton Ind. Devel. Corp.	Northampton, Pa.		James E. McHenry
Northumberland	Northumberland Ind. Devel. Corp.	Northumberland, Pa.		James E. McHenry
Ohio	Ohio Ind. Devel. Corp.	Ohio, Pa.		James E. McHenry
Perry	Perry Ind. Devel. Corp.	Perry, Pa.		James E. McHenry
Pike	Pike Ind. Devel. Corp.	Pike, Pa.		James E. McHenry
Port Clinton	Port Clinton Ind. Devel. Corp.	Port Clinton, Pa.		James E. McHenry
Richmond	Richmond Ind. Devel. Corp.	Richmond, Pa.		James E. McHenry
Schenck	Schenck Ind. Devel. Corp.	Schenck, Pa.		James E. McHenry
Snyder	Snyder Ind. Devel. Corp.	Snyder, Pa.		James E. McHenry
Tioga	Tioga Ind. Devel. Corp.	Tioga, Pa.		James E. McHenry
Township	Township Ind. Devel. Corp.	Township, Pa.		James E. McHenry
Union	Union Ind. Devel. Corp.	Union, Pa.		James E. McHenry
Warren	Warren Ind. Devel. Corp.	Warren, Pa.		James E. McHenry
Washington	Washington Ind. Devel. Corp.	Washington, Pa.		James E. McHenry
West Chester	West Chester Ind. Devel. Corp.	West Chester, Pa.		James E. McHenry
Westmoreland	Westmoreland Ind. Devel. Corp.	Westmoreland, Pa.		James E. McHenry
York	York Ind. Devel. Corp.	York, Pa.		James E. McHenry

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10.5 to 11.2 million. This increase represents an improvement over the 1940-1950 decade when it increased from 9.9 to 10.5 million for a gain of six per cent. Metropolitan areas within the state have a total population of 8.85 million, of which 3.5 million is in the Pennsylvania portion of the Philadelphia metropolitan area and 2.4 million is in the four-county Pittsburgh area.

The state is remarkable for its large rural population, which was 3.1 million in 1950, larger than that of any other state. Only 705,000 of these were actually farm residents, the remaining 2.4 million making up the rural non-farm population.

Note that nearly half the total population — 5.3 million people — now live outside the two largest cities and their environs. The state is remarkable for the many middle-sized and smaller cities, scattered from Easton to Washington and from York to Erie.

Economic changes through the years in Pennsylvania have caused a loss of employment opportunities in some areas. Coal has lost part of its market to competitive fuels, even within the state, and improved technology has further reduced mining employment. Conversion from steam to diesel power has reduced railroad shop employment. The bulk of the textile industry has migrated southward, although that portion of it producing finer grades has tended to remain.

Expansion of steel capacity to meet emergency needs has meant less-than-capacity operations much of the time during the last few years. When this is the case, the older, less efficient plant stands idle, with resulting unemployment.

Although the state as a whole has moved forward steadily, there have been pockets of acute distress, most notably in the coal areas. The 1960 Census shows population declines in these areas following declines in the previous decade. It is a notable fact, however, that the declines are less drastic than in the coal mining areas further

Employment, Value Added by Manufacture and National Rank of Pennsylvania, by Major Industrial Groups, 1957*

Group	Employment	Value Added (\$000)	Rank
Food	115,960	1,098,098	4
Tobacco	13,077	88,932	3
Textiles	84,370	505,777	4
Apparel	156,976	660,427	2
Lumber and wood products	11,993	63,577	18
Furniture	23,610	159,098	5
Pulp and paper	38,974	384,384	2
Printing and publishing	63,748	546,874	2
Chemicals	44,785	718,980	5
Petroleum and coal products	16,794	165,199	3
Rubber	11,833	140,582	5
Leather	32,314	147,883	4
Stone, clay and glass	62,604	593,076	2
Primary metals	228,104	2,234,459	1
Fabricated metals	108,867	926,475	2
Machinery, non-electric	132,718	1,174,001	5
Electrical machinery	94,729	922,552	4
Transportation equipment	61,363	513,183	9
Instruments	22,967	205,616	4
Miscellaneous	34,101	236,478	7
Administrative	61,862		3
Total	1,421,749	11,485,651	2

*From Preliminary Census of Manufacturers, 1958 (Bureau of the Census). Rankings are based on employment.

south, even those where coal production has actually been rising.

The explanation, at least in part, lies in the fact that Pennsylvania's coal areas are less isolated and less completely dependent on coal than those further south, and hence have been able to make an easier transition. Another factor undoubtedly is the presence of enough economic and social capital to do a good job of "pulling themselves up by their bootstraps."

Coal mining areas sometimes suffer unjustly from stereotyped thinking on the part of some manufacturers as to the type and quality of labor that may be available. Studies of unemployed Pennsylvania coal miners made by employment agencies have revealed a much higher degree of mechanical skill and of adaptability to factory operations than many manufacturers would have thought possible. The managers of new plants set up on the basis of such findings have been delighted with the trainability and productivity of the labor available to them.

The scattered pools of surplus labor in the state have come to be regarded by manufacturers as prime inducements for locating in Pennsylvania; this applies more especially to those already interested in the markets and raw materials available.

Favorable Tax Structure

The present state tax structure in Pennsylvania — and the benefits obtained from it — bear comparison with any of the industrial states. Since the major overhaul of the structure in 1957, the main burden of state taxation fall on the consumer, as shown by the following estimates of the 1959-61 state revenue:

The Pennsylvania Market Region* — A Big Slice of the National Economy

	United States	Pennsylvania		Pennsylvania Market Region	
	Amount	Amount	Per cent of U.S.	Amount	Per cent of U.S.
Population, 1960 (in thousands)	179,323	11,319	6.3	62,555	34.9
Personal income, 1959 (\$million)	380,664	24,732	6.5	149,102	38.9
Value added by manufacture 1958 (\$million)	116,913	9,930	8.5	53,513	45.8
Number of manufacturing establishments, 1958	298,077	18,995	6.4	126,729	42.5
Retail Sales, 1958 (\$million)	199,710	12,322	6.2	72,062	36.1
Construction contract awards, 1959 (\$million)	20,279	846	4.2	7,019	34.6

*Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, West Virginia, Ohio

PENNSYLVANIA



↑ Harrisburg is one of 45 Pennsylvania municipalities with an active urban renewal program underway. New office buildings and apartments are rising in the shadow of the State Capitol. Elsewhere in the city, dignified mansions of the Federal period are lovingly preserved by the present occupants—mainly doctors and lawyers.

↓ Altoona is another community that has successfully diversified its economy after technological changes brought reduced employment in the Pennsylvania Railroad shops. Here is the SKF bearing plant, one of the turning points in its upsurge, which has recently finished a \$1.2 million expansion, making use of PIDA financing.



PENNSYLVANIA

Source	Amount (In \$ millions)	Per cent
Sales tax	749.3	29.4
Fuels tax	304.3	11.9
Motor license and fees	180.6	7.1
Cigarettes	126.0	4.9
Liquor store profits	97.0	3.8
Liquor and beer taxes	95.0	3.7
Subtotal — consumers	1,552.2	60.8
Corporate income and net income	315.0	12.4
Capital stock and franchise	120.0	4.7
Utility and insurance		
company receipts	76.2	3.0
Subtotal — corporations	511.2	20.1
Inheritance	92.0	3.6
Realty transfer	39.0	1.5
Other taxes	41.3	1.6
Other revenue, including		
Federal aid for highways	312.8	12.4
Subtotal — general	485.1	19.1
Total	2,548.5	100.0

The main tax applicable to manufacturers is the corporation income tax of 6 per cent on net income attributable to Pennsylvania. The capital stock and franchise taxes of 5 mills on the value of capital stock attributable to Pennsylvania specifically exempts the value of stock employed in manufacturing.

There is no state income tax in Pennsylvania; five of the larger municipalities have local income taxes ranging from $\frac{1}{2}$ to $1\frac{1}{2}$ per cent.

Not only the state but localities, which depend primarily on property taxes and which collect 51 per cent of the total take of state and local taxes, are increasingly aware of the unwisdom of killing the well-known goose. Non-property taxes, authorized by Act 481 in 1947, are being increasingly used by localities and these for the most part do not fall directly on industry.

Industrial machinery and equipment are deductible in computing local property taxes; stocks, inventories and personal property generally are exempt.

Educational diversity parallels industry in Pennsylvania. The University of Pittsburgh, shown to the right, typifies the complete metropolitan university, privately supported but serving the entire community. Penn State, whose history appears on the next page, is the centrally located state university with an excellent graduate program and with far-flung extension services and community junior college centers. Swarthmore, whose Parrish Hall stands at the end of an avenue of elms, epitomizes the atmosphere of the long-established liberal arts school. It concentrates on giving the best possible undergraduate training to a relatively small and carefully selected student body.

The Department of Commerce has a pamphlet entitled "Tax Guide for Manufacturers" which gives details on rates and compares them with 16 other industrial states.

Advantages for Research

Like other northeastern states, Pennsylvania continues to be largely the domain of private and denominational colleges, six of which date back before 1800. The oldest is the University of Pennsylvania, which is rather surprisingly not a state institution. With the sixth largest faculty in the country and heavily endowed, it is a major center for graduate study and for advanced research.

Three other universities — Pittsburgh, Penn State and Temple — also have enrollments greater than 15,000, faculties of more than 1,000, and extensive facilities for graduate study and research.

Drexel and Carnegie are well-known engineering schools and Lehigh has an exceptionally strong engineering department.

Scattered across the state are a number of highly regarded liberal arts schools such as Villa-

nova, Swarthmore, Haverford and Bryn Mawr in the Philadelphia suburbs, Lafayette and Muhlenburg in the northeast, Dickinson and Franklin and Marshall in the south, Bucknell and Susquehanna in the center, and Duquesne, Allegheny and Washington and Jefferson in the west. Many of these have low student-to-faculty ratios so often associated with high scholastic standards.

Penn State is notable for its rapid growth in recent years, the breadth of its extension work, and the breadth of its research activities. Curtiss Wright recently transferred to Penn State a nuclear reactor which will aid the university's program of atomic research.

Industrial laboratories built or building promise to keep the state in the front rank as a center for research-based industry. Several areas north and west of Philadelphia and east of Pittsburgh are now emerging as concentrations of major research laboratories.

A recent analysis* of the major fields of research and testing dealt with by industrial lab-

PENNSYLVANIA

oratories yields the following results:

Field	Number of laboratories
Metallurgy	58
Electrical and electronics	64
Instruments and controls	21
Food	8
Ceramics, refractories, glass	23
Chemicals	163
Textiles	14
Water, sanitation	9
Physics and mechanical	75
Nuclear energy	5
Other types	59
Total	499

* Industrial Research and Testing Laboratories in Pennsylvania, by Industrial Development Bureau, Pennsylvania Department of Commerce, Harrisburg.

Pennsylvania has many advantages for research and development work, most notably the presence of major producing facilities and long-established central laboratories of many large corporations. Its own universities and those nearby turn out

Major Research and Development Facilities Announced in Pennsylvania since 1956

Facility	Location	Cost
National-U. S. Radiator	Johnstown	\$1,000,000
Lukens Steel	Coatesville	1,000,000
Footo Mineral	Exton	2,200,000
General Electric (Nuclear research—2700 employees)	Valley Forge	
Scott Paper	Chester	10,000,000
American Viscose (220,000 sq. ft.)	Marcus Hook	
Sun Oil	Marcus Hook	1,370,000
Keasbey & Mattison	Ambler	1,000,000
Decker Aviation	Bala-Cynwyd	5,000,000
		344,000
Philco	Blue Bell	2,000,000
Remington-Rand — Univac	Center Square	2,500,000
Pennsylvania Salt (243,000 sq. ft.)	King of Prussia	
Leeds & Northrup	North Wales	1,225,000
Boeing — Vertol Div.	Philadelphia	2,000,000
Remington-Rand — Univac	Philadelphia	5,000,000
Gulf Oil	Harmarville	1,500,000
Koppers	Monroeville	6,000,000
U. S. Steel	Monroeville	1,350,000
Bituminous Coal Research	Pittsburgh	1,000,000
H. J. Heinz	Pittsburgh	3,000,000
Pittsburgh Testing Lab.	Pittsburgh	1,000,000
		1,700,000
Hagan Chemicals & Controls	Robinson Twp.	250,000
Harbison-Walker	West Mifflin Twp.	1,000,000
McGraw Edison (Pa. Transformer Div.)	Canonsburg	1,000,000
Alcoa (2,300 acres)	Merwin	30,000,000
Westinghouse Electric	New Kensington	
	Waltz Mills	6,500,000

graduates in all major fields and many faculty members are available for consultation. Both Washington and New York, where many of the decisions involving the future use of new products are made, are close at hand. And the state is well stocked with the cultural and recreational amenities important in attracting and holding highly trained technical personnel.

A Chance to Relax

Pennsylvania has such a wealth of varied terrain and so many developed recreational areas that no part of it is far from a state park or state forest, and many spots that would be widely publicized in other states are known only to a discriminating few in Pennsylvania.

At every season there is something noteworthy — the apple and peach blossoms and the mountain laurel in the spring and the autumn foliage along the Susquehanna and elsewhere help to fill in the gaps. Late in the fall, hunters bag up to 100,000 deer annually and an occasional bear, along with much smaller game. Camping and fishing are especially popular with local people, and water sportsmen have a wide choice of man-made and natural lakes.

Two recently developed state parks are Denton Hill, a winter sports area in the north and Prince Gallitzin, near Altoona, which has a 1,700-acre lake open to small boats.

Philadelphia and Pittsburgh have the full range of metropolitan cultural and recreational attractions, ranging from great symphonies, art museums, and libraries to professional and college sports. No one needs to be told what happened in Forbes Field this fall.

The colleges scattered all over the state are focal points for much of the local activity, and some of the annual events, such as Bethlehem's Bach Festival, are nationally known.

Golf and tennis enthusiasts have ample scope for their talents and have the opportunity to watch leading tournaments at Oakmont, Hershey, Merion and elsewhere.

Transformed Cities

Life in Pennsylvania cities is taking on a new dimension as a result of the dramatic changes brought about by urban renewal and rehabilitation. The fame of Pittsburgh's Golden Triangle and Philadelphia's Penn Center is already widespread, and the remarkable Society Hill rehabilitation project in Philadelphia recently had nation-wide publicity on TV.

Similar projects are underway in 45 municipalities, and 150 localities are now engaged in comprehensive land-use planning. Many of these are suburban or rural communities making plans for orderly growth. The state's grant-in-aid program for urban redevelopment is administered by the Department of Commerce, on the theory that urban planning and redevelopment contribute

greatly to a statewide industrial development program.

"PIDA" Equals 100 Per Cent Financing

The "Pennsylvania Plan" for 100% financing of industrial plants is nationally regarded as a major innovation in organized industrial development and promotion. It was described recently by a national weekly as the country's "strongest program to aid local communities in their battle for survival".

During the first four years of its life, through June 1960, PIDA participated in the financing of 127 projects, costing \$51 million (See pages 28-29).

Under this program, the Pennsylvania Industrial Development Authority — "PIDA" — joins with local groups, banks and insurance companies to provide complete financing for new plants and expansions in labor-surplus areas. Companies typically occupy the buildings under lease-purchase agreements — but they put none of their own money into the land, bricks and mortar. The overall interest rate they pay is substantially under

going commercial mortgage rates.

Community non-profit industrial development corporations are the builder-owners, and supply 20% of the project cost. Financial institutions provide 50% in first mortgage loans. PIDA supplies the remaining 30% on a second mortgage basis. Interest on the local 20% and the PIDA 30% can be as low as 2%. Terms of financing run between 15 and 20 years in most cases.

Agencies to Help You

Pennsylvania is especially fortunate in the number and strength of development organizations and the completeness of the information available from them. Under the guidance of State Commerce Department Secretary and PIDA Board Chairman William R. Davlin, Pennsylvania has built an outstanding reputation for its service to manufacturers interested in Pennsylvania and for the guidance it offers to community organizations in the state.

Community organizations such as the chambers
(Continued on page 48)

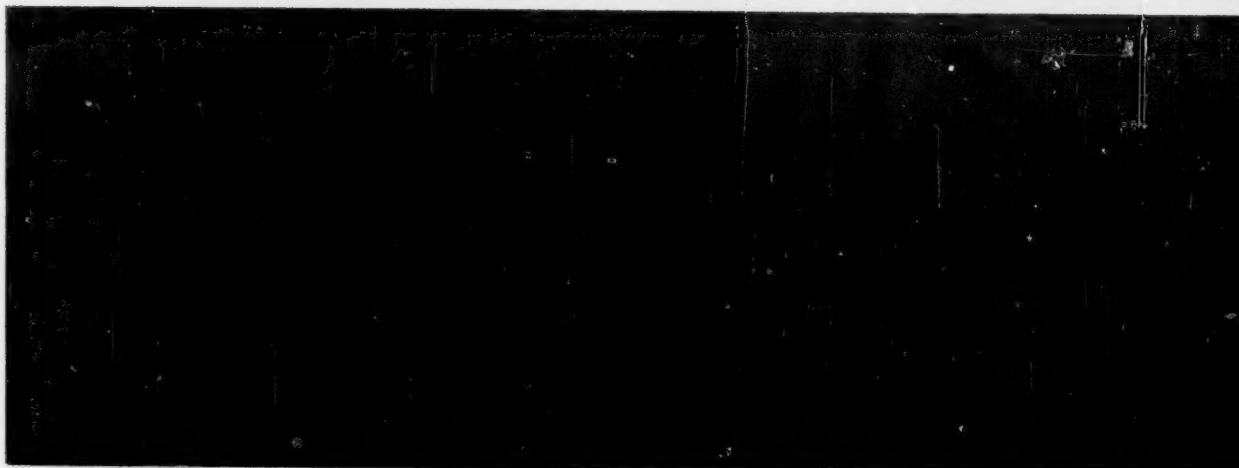
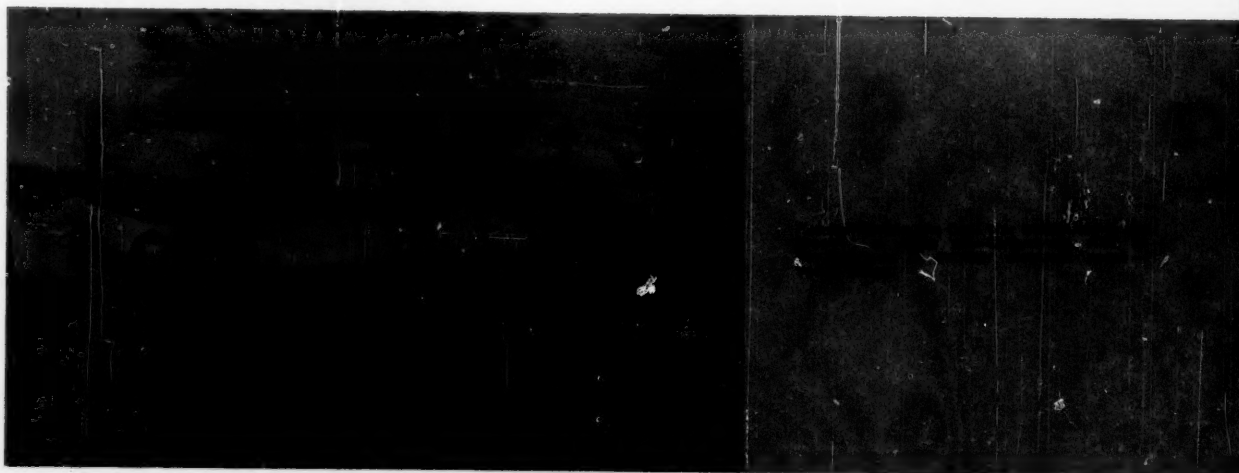


Lititz, in the heart of the fertile Pennsylvania Dutch country side near Lancaster, is the site of the Lambert-Hudnut laboratory covering 400,000 square feet and employing 600.



As the Keystone State of the original thirteen, Pennsylvania's colonial and revolutionary importance made Philadelphia the major focus of activity. Independence Hall has been freed of the encumbrance of surrounding buildings and now stands at the end of a graceful mall in the heart of the city.

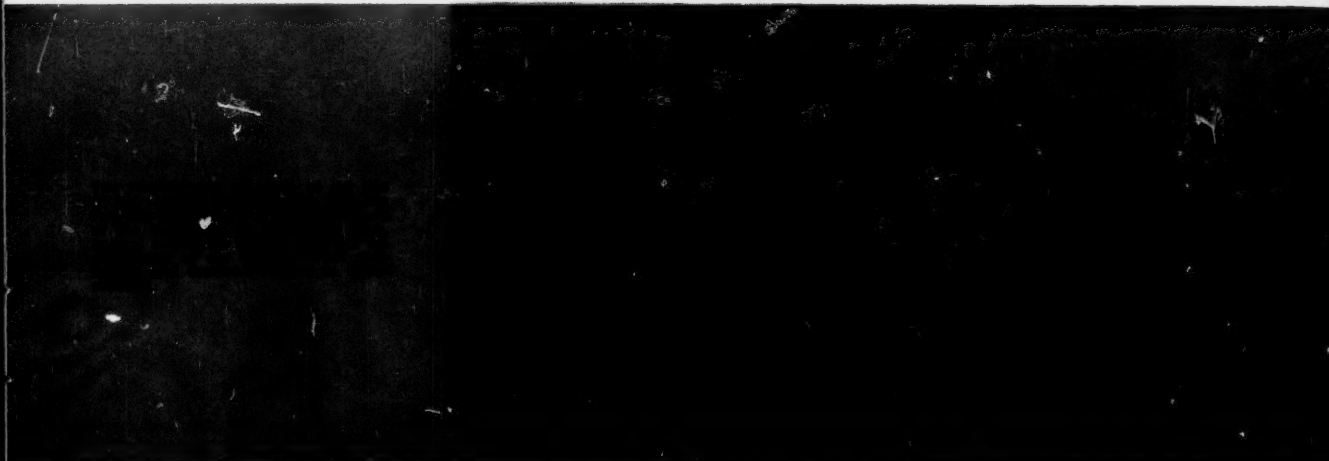
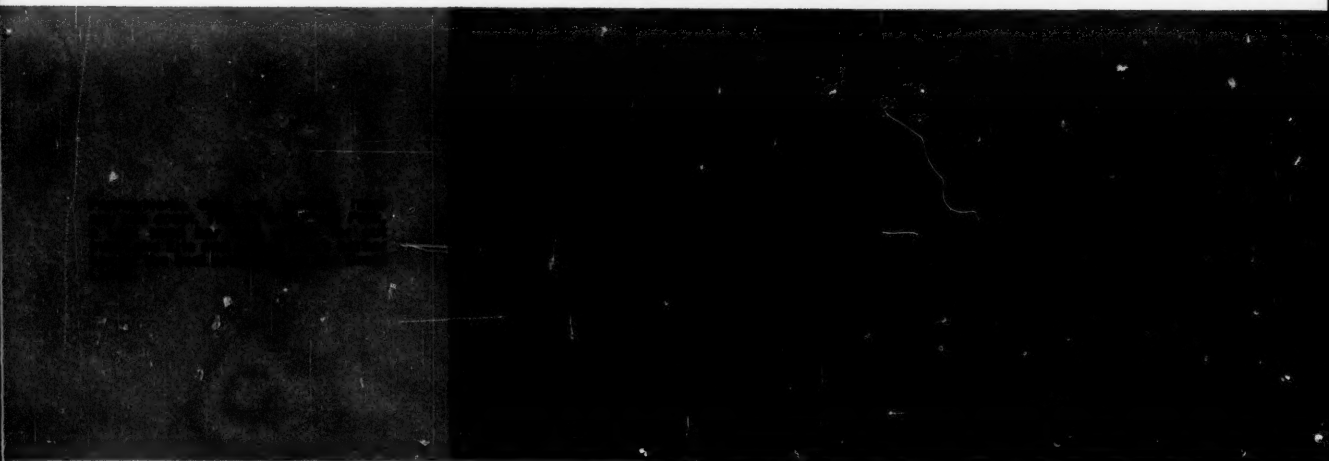
PENNSYLVANIA LIVING:



The alternation of fertile limestone valleys and forested sandstone ridges is repeated again and again across central Pennsylvania. The Susquehanna follows the valley here near Montoursville but farther down stream it cuts through ridge after ridge to reach the head of Chesapeake Bay.



ENRICHED BY TIME AND SPACE



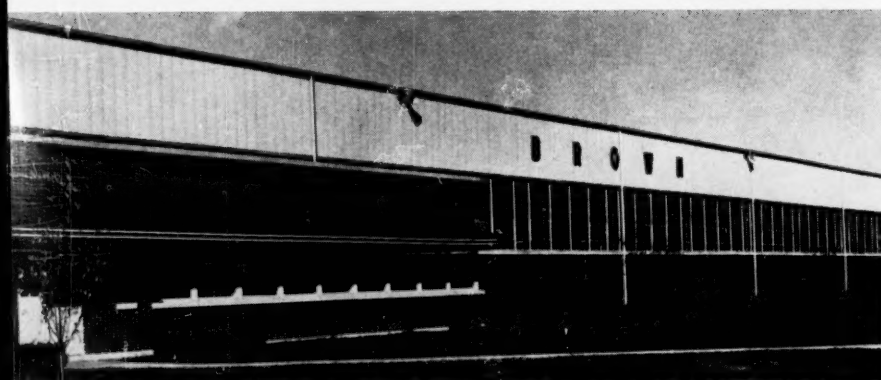


Sylvania's Altoona plant is part of a small empire of Sylvania plants in central and western Pennsylvania. Others are in Emporium, Montoursville, St. Marys, Warren and elsewhere.

AN ALBUM OF NEW PLANTS

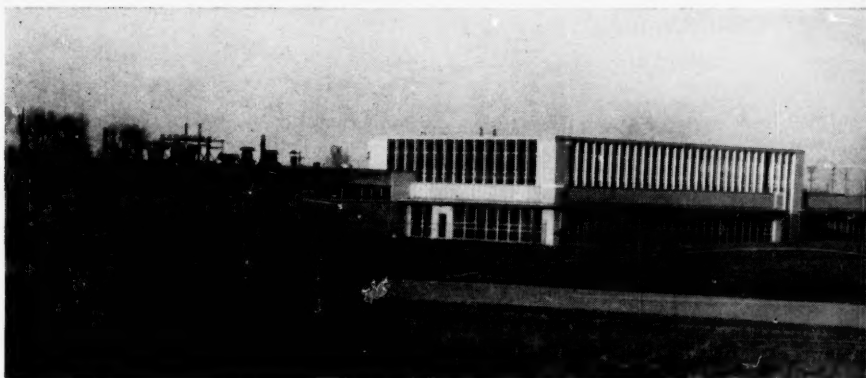


Former city-owned land being redeveloped by the Philadelphia Development Corporation has been acquired by the Howard Refrigerator Company to house this 100,000 square foot plant.

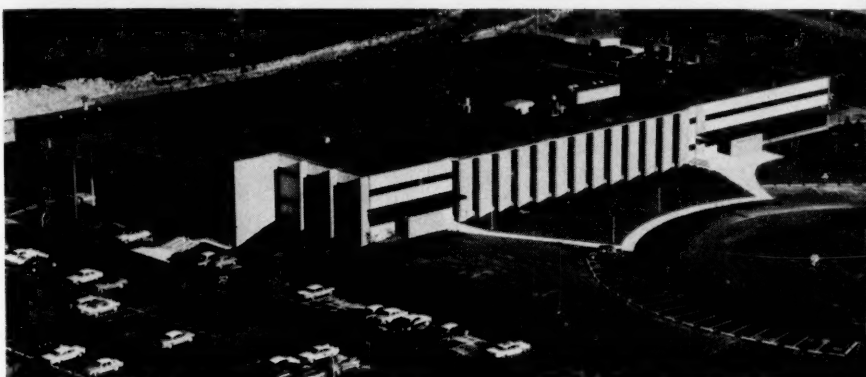


Reading has made a notable transition from textiles to metal working as its industrial mainstay. Clark Equipment's new Brown Trailer Division plant, which makes aluminum truck bodies and trailers, is one of the new acquisitions.

American Sterilizer Company in Erie employs nearly 1000. Recent expansions of its laboratory facilities and manufacturing space came to more than \$500,000.



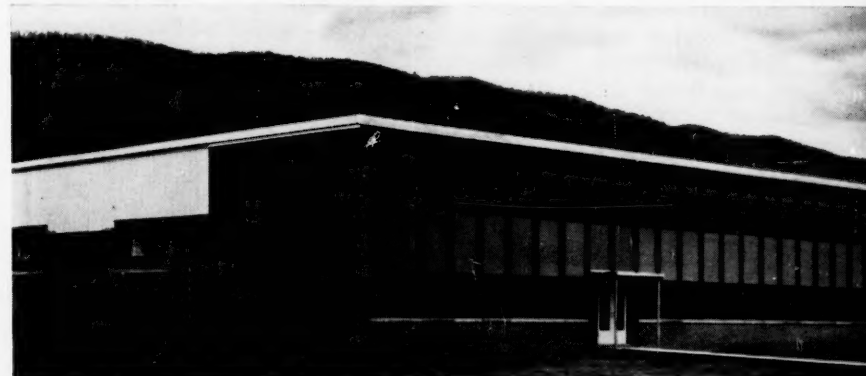
Wilkes-Barre carved its Crestwood Industrial Park out of a forest and made a suitable home for such distinguished plants as this one of RCA. Community and PIDA financing, a large labor pool and ready access to a vast market have helped make such projects extremely attractive to many manufacturers.



The research facility at Johnstown of the National U. S. Radiator Corporation, now a part of the Crane Company.



Williamsport is one of a number of Pennsylvania communities that have put up "shell" buildings in recent years to have something specific to offer industrial prospects. This building is currently available.



PENNSYLVANIA



On the occasion of ground breaking for RCA's new plant in Canonsburg, Governor David L. Lawrence says a few words. On his right is Theodore A. Smith, Executive Vice President of RCA's Industrial Electronic Products Division. At the Governor's left is William R. Davlin, Secretary of the Pennsylvania Department of Commerce and PIDA Board Chairman.

(Continued from Page 43)

of commerce in Scranton, Altoona, Erie and many others have taken the lead in sponsoring money raising drives to provide financing for new and expanding industries. Communities in other states send a constant procession of delegations to Pennsylvania cities to take advantage of their know-how in industrial development—for example, their construction of shell buildings.

In the last decade, nearly \$27 million has been raised by 75 community industrial development organizations within the state, some of them representing a cluster of adjacent towns. Some of the money is used for promotion, but much the greater part has been used to purchase industrial land, develop industrial sites and parks, and finance industrial buildings. Many of the organizations maintain sizeable cash balances for use as seems most appropriate when a suitable prospect appears.

Speculative shell buildings have been a notable

success. Nineteen completed in the last five years are now occupied, and several have already been added to by the occupants. The six buildings currently available and the size of each are as follows:

	Sq. Ft.		Sq. Ft.
Erie	20,000	Shenandoah	50,000
Hazleton	69,000	Wilkes-Barre	60,000
Scranton	92,736	Williamsport	45,000

Others are now under construction in Tamaqua (60,000 square feet) and in Altoona and Uniontown (50,000 square feet each).

The utilities and railroads serving the state also have development organizations able to supply information carefully tailored to industry's needs.

Pennsylvania is weaving a new industrial fabric, incorporating large segments of its sturdy past but primarily designed to meet the present and future needs of its customers. The whole world buys from Pennsylvania.

Frank H. Stedman, who wrote this survey, is ID's Technical Director. A geographer, he studied at Harvard, Chicago, and Michigan, and had ten years of experience in Federal intelligence agencies and four years in industrial development work at the U. S. Chamber of Commerce before coming to ID last January.

This survey of industrial location factors in Pennsylvania was conducted under the auspices of the Commonwealth's Department of Commerce. For reprints or for further details on any of the possibilities, write to William R. Davlin, Secretary, Pennsylvania Department of Commerce, South Office Building, 121 State Street, Harrisburg, Pennsylvania.

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Thus, we are making every effort to encourage expansion of our present industries, and to provide practical assistance to industries relocating within the Commonwealth or locating branch plants here.

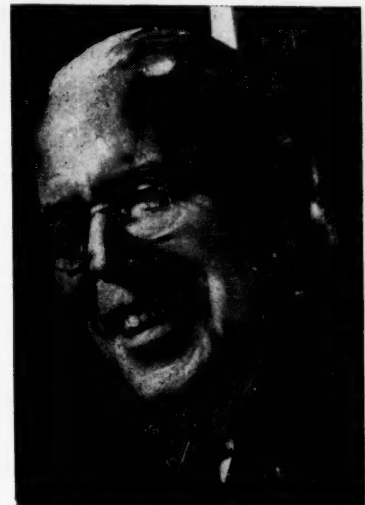
Pennsylvania's tax climate is rated as excellent and is giving an important impetus to our industrial growth and to the development of new job opportunities.

The pages in this special section on industrial Pennsylvania depict the results stemming from all of this, and the opportunities available in the Commonwealth for profitable company operations and growth.

Pennsylvania extends an earnest, deeply intended welcome to industry.

David L. Lawrence

David L. Lawrence
Governor

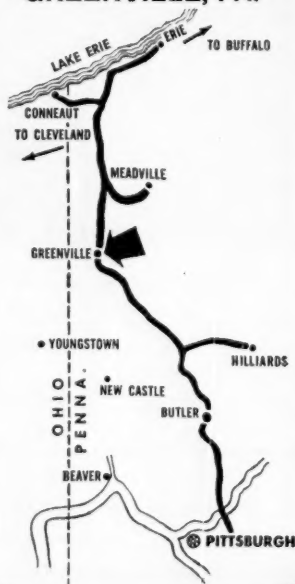


The Honorable David L. Lawrence, Governor
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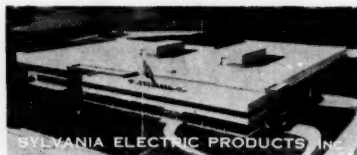
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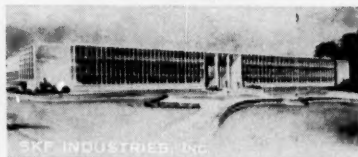
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Man badgering: J. W. Crosby, President, Thiokol Chemical Corporation

"Mister Sound" and "Mister Fury" confer on the technique of extrication from a trap on the fourth hole at Warrington Golf and Country Club in Bucks County.

The unique is the usual in this vibrant, verdant county of captivating contrasts! In turn-about, Pops Whiteman hears the sound of free advice from "Mr. Fury"—J. W. (Bang, not Bing) Crosby, president of the rocketing Thiokol Chemical Corporation, whose fuels power many of this country's modern missile systems.

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Just that men like these live, work and play in

Bucks—County of industrial giants and individual enterprises. "Mr. Sound" and "Mr. Fury"—are at home in the middle of a third of the entire U.S. market. Turnpikes, concentrated railroad facilities, jet airports and a deep channel port, all are at the door of the finest country living to be found anywhere.

This is not by accident.

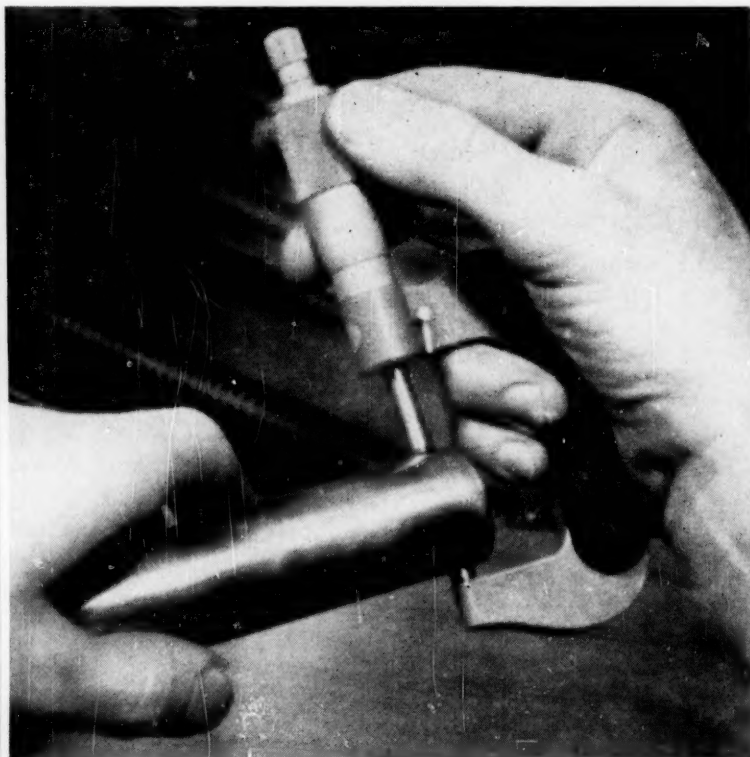
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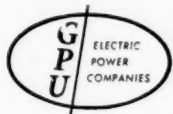
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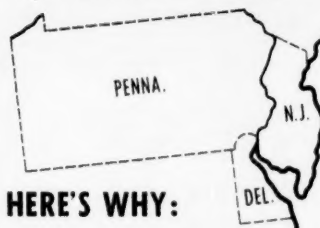
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HERE'S WHY:

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Philadelphia 7, Pa.

FREE! Informative folder,
"Looking for the Right Plant
Site?" For your copy write
to address shown above.



READING RAILROAD

INDUSTRIAL DEVELOPMENT
DEPARTMENT



If you are seeking room for expansion or relocation, probably you are also seeking key facts about likely areas—uncluttered by claims and generalities. Here are just a few key facts indicating the possibilities of Delaware Valley, U.S.A.

There are **24** active industrial parks and districts in this corner of Southeastern Pennsylvania in and around Philadelphia. Zoning requirements have been met, and developers offer the facilities of designing, engineering, plant layout, site development, financing, and construction.

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Our department is equipped to provide comprehensive information on all phases of a plant location project—raw materials, markets, transportation, labor, utilities, water, and neighboring industries. We have a continuing inventory of industrial sites and available industrial buildings, and detailed analysis of community facilities, taxes, and government. You are invited to write, telephone, or wire us today for specific, detailed Key Facts. You are assured of complete confidence.

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**CITY OF
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- Main line rail facilities —
- Major truck terminals, and,
- Foreign ports are as close as the Port of Erie's Duquesne Pier with loading and unloading facilities for 200-ton shipments.

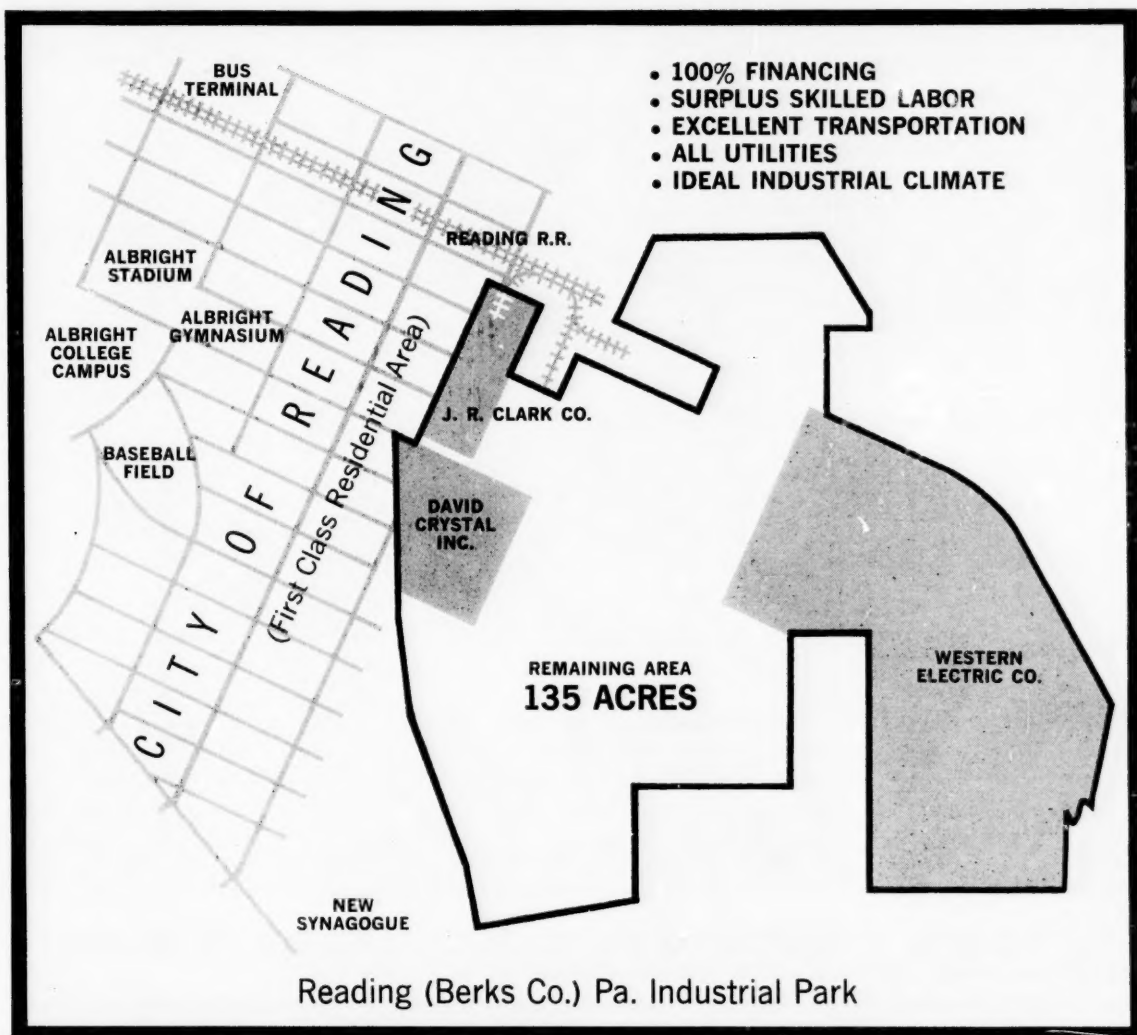
Erie County offers you your best move for expansion or plant relocation. For further information contact the Erie County Industrial Development Corporation.



Immediately available is this 20,618 square foot building in a planned industrial park. Also available is a suburban 12,600 square foot building. Both are completely equipped with all utilities.

ERIE COUNTY INDUSTRIAL DEVELOPMENT CORPORATION

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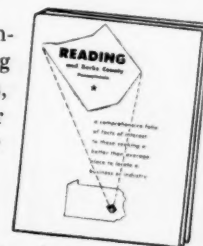
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In peaceful, thriving Reading and Berks County you'll find everything you need to grow and prosper. Ideal plant sites, large and small, are available in a beautiful, modern Industrial Park and throughout the area.

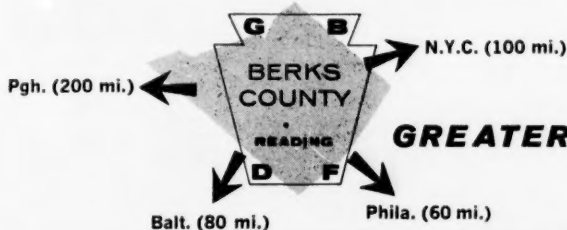
Trained manpower, excellent transportation (2 railroads, 3 airlines, 20 truckers, the Penna. Turnpike), ideal basic material sources, and a perfect industrial

climate are yours when you come to Reading and Berks.

And with it we offer qualified industry 100% financing, building to order, non-profit lease plans, and your choice of sites. Call or write for 26-page brochure or site-seeking help.



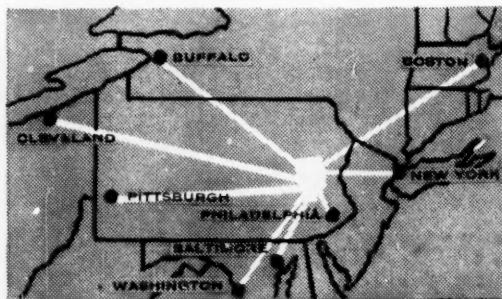
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Harrisburg Area Chamber of Commerce

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HEART
OF THE
MARKET**



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Space For You In Central Eastern Pennsylvania"

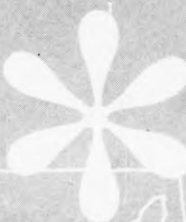
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Company

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Roland H. Dunn, Executive Director

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AUDITED CITIES IN THE STATE OF PENNSYLVANIA

As of this writing, the following Pennsylvania communities had certified audits on file in the International Community Audit Registry. The Registry is maintained by INDUSTRIAL DEVELOPMENT magazine as a gratis service to industrialists interested in a summary of pertinent information about specific cities.

Albion	Lebanon
Allentown	McKean
Altoona	Millcreek
Corry	Mount Union
Cranesville	North East
Edinboro	Pittsburgh
Elgin-Beaverdam	Platea
Erie	Reading
Fairview Township	Shenandoah
Girard	Union City
Harborcreek Township	Uniontown
Huntingdon	Waterford
Indiana	Wattsburg
Lake City	Wesleyville
Lawrence Park Township	York



"Enjoy Labor Peace in Wilkes-Barre!"

says Dr. Samuel Rosenberg, Chairman of the Department of Commerce and Finance, Wilkes College and Executive Director of the Labor-Management-Citizens Committee.

Locate in Wilkes-Barre and you get all the usual advantages, plus an unusual one—Labor Peace.

Labor peace has been achieved by an effective means of mediation—Wilkes-Barre's LABOR-MANAGEMENT-CITIZENS COMMITTEE. This committee is a permanent group representing, as its name indicates, all interested parties to labor disputes. It is sponsored by the Greater Wilkes-Barre Chamber of Commerce and directed by a paid executive director.

When faced with a labor-management problem, a panel from the Committee swiftly acts in the mutual interest of all three parties. The function of the LABOR-MANAGEMENT-CITIZENS COMMITTEE, the only one of its kind in Pennsylvania, is primarily mediation. It has an outstanding record of success in helping achieve a satisfactory accord; and in many instances the LABOR-MANAGEMENT-CITIZENS COMMITTEE has actually prevented work stoppage. It has proved a positive factor in creating a climate of understanding, mutuality of interest and joint responsibility which is rapidly making Wilkes-Barre one of the nation's most progressive areas in labor-management relations.

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Greater Wilkes-Barre Chamber of Commerce

Industrial Fund, Inc. — Committee of 100, Inc.

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29 Major Employers: In Area 4-83 Years; 7600 Workers. 20 Average 53.5 Years.

Midway Between Chicago & New York City Markets; Pittsburgh & Cleveland Markets.

One-Half Hour to Pennsylvania Turnpike, Keystone Shortway & Pittsburgh-Erie Freeway.

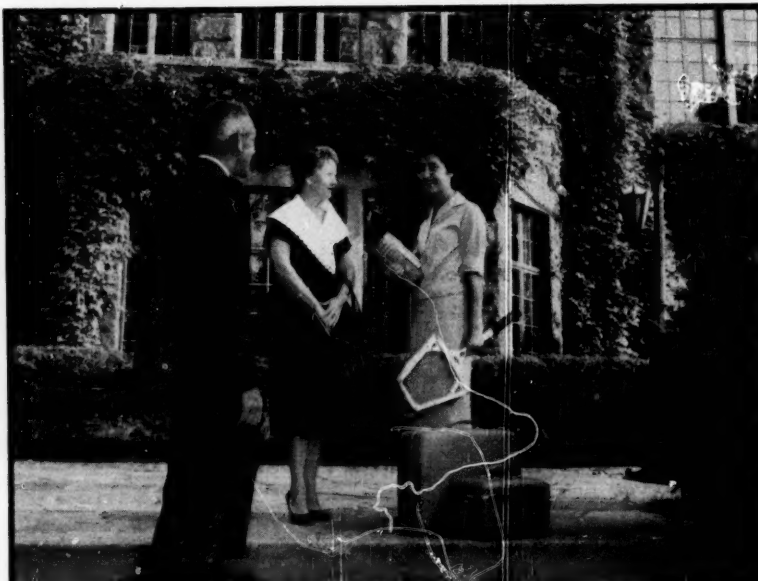
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Consider these advantages when you are looking for a new location.

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offers . . .

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- Community financing of buildings in cooperation with Pennsylvania Industrial Development Authority.



For complete information
wire, write, or phone
Perry Wilson

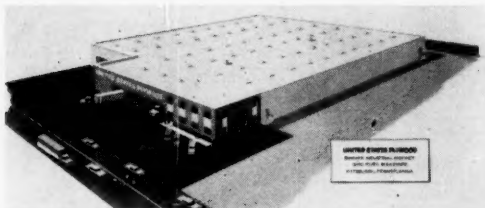
**BEDFORD DEVELOPMENT
COUNCIL**

Bedford, Pennsylvania

BUNCHER INDUSTRIAL DISTRICT

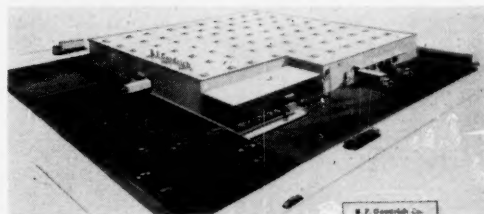
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OFFERS THESE PLUS ADVANTAGES

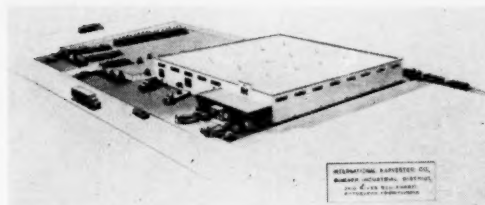


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Put together, the Bell Telephone buildings in the areas we serve throughout Pennsylvania would make a city of 850 structures . . . housing many millions of dollars' worth of the most modern equipment . . . linking Pennsylvanians to each other and the world.

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of Pennsylvania**

Your neighbors enlarging your world through service and science



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GROWTH
INDUSTRIES

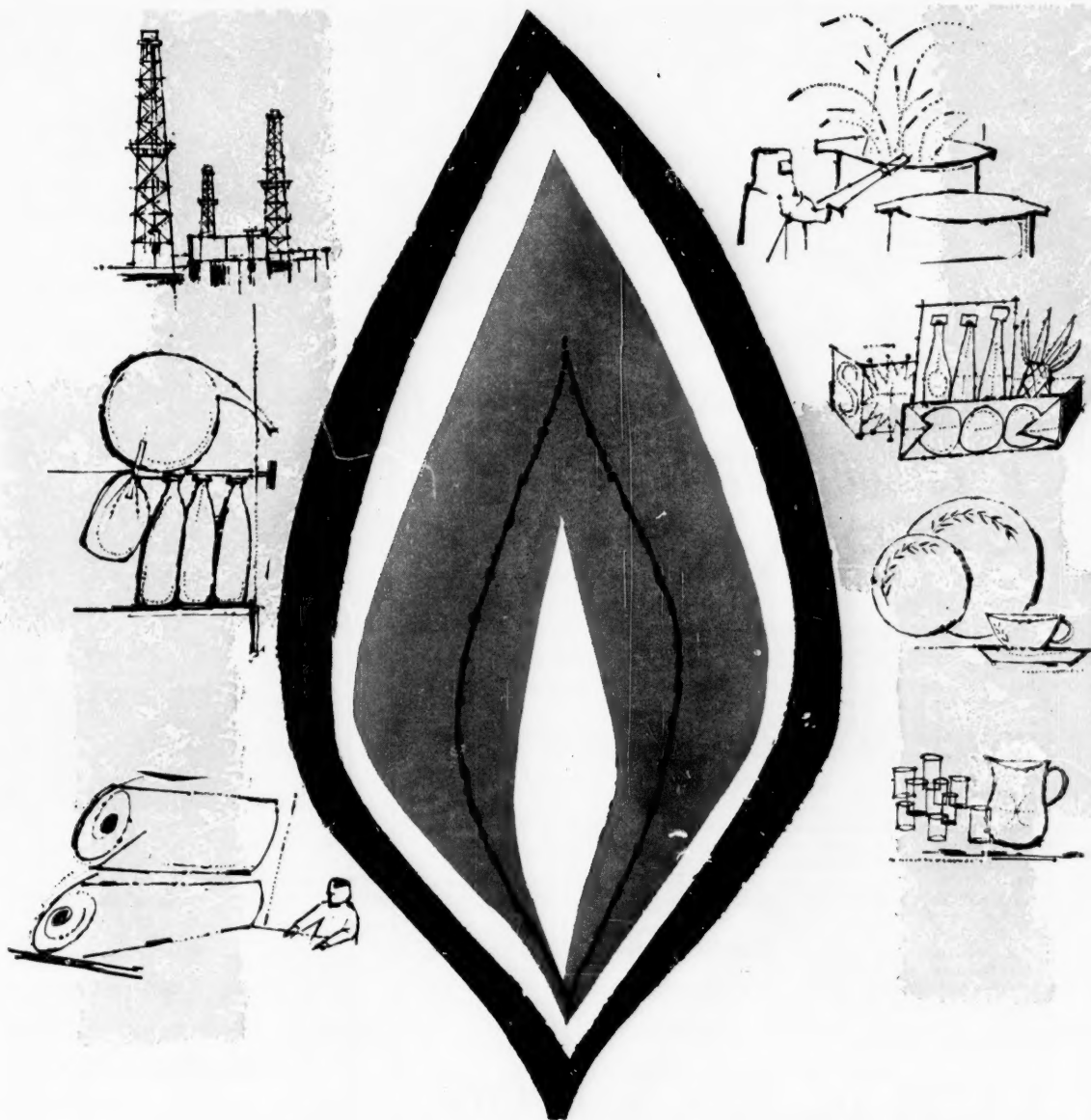
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More and more businesses are finding they can cut production costs by using natural gas for fuel. Especially in Southwestern Pennsylvania. Here, natural gas is available in almost unlimited supply; and gas rates are among the lowest of the great industrial centers throughout the country.

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Industries are taking advantage of this ideal fuel situation. From donut makers to steel fabricators—

they are moving into the area. Most families, too, (1,180,000 of them) prefer gas because it's clean, plentiful, and inexpensive.

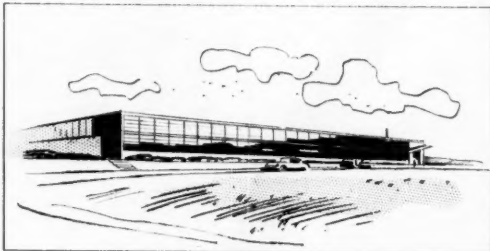
Look into Southwestern Pennsylvania. It's a fine place for your business and for your employees. For full information about the cost and availability of gas in specific areas, write to:



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The Scranton Plan really works - it's backed with \$4,000,000 of community funds to help you with your plant financing. Do business with the oldest, most successful organization in the Community Industrial Development Field. Contact...



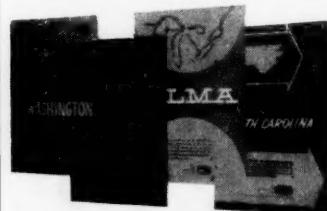
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SCRANTON CHAMBER OF COMMERCE, SCRANTON 3, PA.

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That's what businessmen are saying about the new AREA DEVELOPMENT GUIDE, a practical textbook on industrial development, area promotion, and community improvement. Donations of this textbook to the local chambers of commerce in your service areas will help identify you as a progressive, community-minded organization. And you'll be helping in the economic development of the communities which you serve. Single-order price is only \$25 and you can get a discount on bulk orders. Address inquiries to:

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Conway Publications, Inc.
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EDITORIAL SURVEYS And Plant Location Reports

Since before the turn of the century MANUFACTURERS RECORD has issued special studies of specific cities and areas to assist the site-seeking industrial firm. Today, through the combined coverage of INDUSTRIAL DEVELOPMENT and MANUFACTURERS RECORD this tradition of leadership in this field is being extended and carried forward.

Before you go site-seeking, take advantage of background studies which have already been prepared for the areas listed below. Generally, reprints are available gratis.

COMPANY SURVEYS

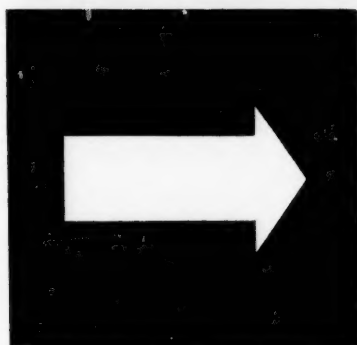
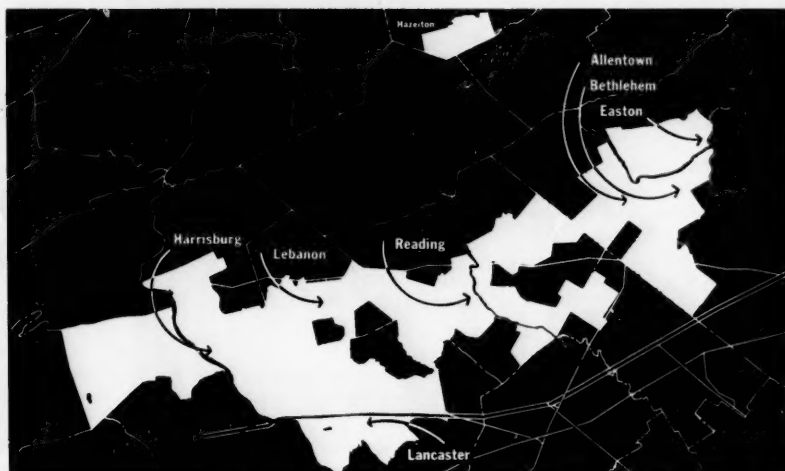
Rock Island Lines	Aug., 1960
Western Pacific Railroad	Feb., 1960

AREA SURVEYS

Berkshire County, Mass.	Nov., 1960
North Bay Area of Calif.	Nov., 1960
Indiana	Oct., 1960
Georgia	Sept., 1960
Seattle, Wash.	Sept., 1960
Elliott Lake, Ontario	Sept., 1960
New York's Capital District	Aug., 1960
Washington State	July, 1960
North Carolina	June, 1960
California, South Bay Area	June, 1960
The Mohawk Valley	May, 1960
No. and Cen. California	May, 1960
Alma, Michigan	Apr., 1960
Thomasville, Ga.	Apr., 1960
St. Augustine, Fla.	Mar., 1960
Colorado	Mar., 1960
Gainesville, Fla.	Feb., 1960
West Virginia	Jan., 1960
Calgary	Jan., 1960
Hawaii	Dec., 1960
Kansas	Dec., 1959
St. Lawrence Valley	Nov., 1959
Oregon	Nov., 1959
Virginia	Oct., 1959
Staten Island	Oct., 1959
Oklahoma	Sept., 1959
Fresno County, Calif.	Sept., 1959
Niagara Frontier	Aug., 1959
Canada	Aug., 1959
Ohio River Valley	Jul., 1959
Columbus, Ohio	June, 1959
St. Louis Area	May, 1959
Iowa	Apr., 1959
Puerto Rico	Mar., 1959
Washington, D. C. Area	Feb., 1959
Cleveland Corridor	Jan., 1959
West Texas	Jan., 1959
Rome and Floyd County, Ga.	Dec., 1958
Sacramento	Nov., 1958
Orange County, Calif.	Sept., 1958
Erie County, Pa.	Aug., 1958
New Bedford, Mass.	Aug., 1958
Lower Va. Peninsula	July, 1958
Matton, Ill.	June, 1958
Florida Bay Area	June, 1958
West Mississippi	May, 1958
Savannah, Ga. Area	May, 1958
Knoxville, Tenn.	April, 1958
Charleston, S. C.	March, 1958
Dallas, Tex.	Feb., 1958
Louisiana	Jan., 1958
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ATLANTA 19, GEORGIA

These areas of
Eastern
Pennsylvania
offer
choice plant
sites and
natural GAS



For your next plant location, consider first the areas of Eastern Pennsylvania shown above. They're close to half of the nation's buying power. Transportation is excellent... only minutes from the turnpike and a network of superhighways. Skilled labor is available. There are delightful communities in which to live, with fine schools and churches. Recreation is minutes away. And there's a plentiful supply of low cost natural gas. As a matter of fact, clean, economical gas has helped build profits for hundreds of industries in these areas. And through constantly expanding facilities it will continue to do so in the future. Write to our Area Development Department in complete confidence for full details.

THE UNITED GAS IMPROVEMENT COMPANY

1401 Arch Street, Philadelphia 5, Pa.

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Segundo Premio
en la categoría de Planificación



AWARD-WINNING FILMS CAN HELP YOU IMPROVE BUSINESS CLIMATE IN YOUR SERVICE REGIONS

The job of improving the business climate in any given area, or for maintaining a good business climate for that matter, is the responsibility of many people: The manufacturers in the area, the business and commercial houses, the chambers of commerce, and the newspapers and civic clubs. None of these groups can rightfully complain about the business climate in their area unless they are doing their part to improve the attitude of the general public toward business in general. Most will agree with this viewpoint, but the problem arises when the question "HOW?" is asked.

Two award-winning films can be part of the answer. Industrial Sound Films, an affiliated company of Conway Publications and International Sound Films, has produced two widely-acclaimed, full-color, sound films which can help you do your part in the difficult task of improving the business climate in your area. GOLD MINE ON MAIN STREET and BLUEPRINT FOR PROGRESS are designed to show the value of industrial development and zoning, respectively. Together these films give you a means of educating the general public in your area on the benefits of cooperating with existing and new businesses, both industrial and commercial.

In the past two years, these two films have won acceptance and honors given only to top films. Both were accepted for showing at the American Film Festival in 1959, an honor in itself since a relatively few films are accepted from the thousands reviewed. Also, BLUEPRINT FOR PROGRESS was the only American film to win an award at the 25th World Planning Congress in Puerto Rico in 1960, winning second place in its category.

Produced at a combined cost of over \$50,000, GOLD MINE and BLUEPRINT are available at a cost of only \$250 and \$275, respectively. And for only \$25, you can have your own leader at the beginning of these films advising viewers "This film is presented in this area as a public service by (your name)." These low prices involve a small amount of money compared to the benefits you will receive in increased prestige and an improved business climate.

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MANUFACTURERS RECORD

THE INTERNATIONAL SUMMARY OF PLANT LOCATION NEWS

ESTABLISHED 1882 VOLUME 129 NUMBER 13

By Arnett Custer

FT. LAUDERDALE, FLORIDA. Univis, Inc. (former Univis Lens Company) President Robert O. Barber announces noteworthy product diversification with a plant move from Ohio to Florida. A structure of 100,000 square feet will be erected in Vision Park adjacent to Broward County Airport, promising the firm an increase in its 7 million dollar annual volume of product sales. Several hundred Floridians will be hired immediately and 70 key personnel will move with Univis from Dayton. Among new products slated are plastic components for the Armed Forces, lenses for glare control, multi-focal and plastic lenses, hearing aids and eyeglass frames.

SAN FRANCISCO, CALIFORNIA. Holt, Rinehart & Winston, Inc. will move administrative offices to a 4-acre site in Crocker Industrial Park. Alfred C. Edwards, president, announced that a 70,000 square foot building will serve the publishing firm as a distribution center and a sales office as well. The 400,000 dollar facility should be ready for occupancy in June of 1961.

NEW BRUNSWICK, NEW JERSEY. Construction of a multi-million dollar research center to be located beside the Rutgers University Science Campus is underway for Colgate-Palmolive Company. By Spring, 1962, the 200,000 square foot ultra-modern facility will be ready for the company's operation of long range fundamental studies and product development.

NEWFOUNDLAND, CANADA. An 18 million dollar asbestos ore body will be developed in the Baie Verte region of the Burlington peninsula by Canadian Johns-Manville Company Ltd., Patino of Canada Ltd., Amet Corp. Inc. and Financiere Belge de L'Asbest-Ciment S.A. 300 jobs and an annual payroll of 1.5 million dollars will be created upon the mid-1963 completion of a

fiber mill, crusher building, dry rock storage, fiber warehouse and service building. 49.62 per cent of the cost will be paid by Canadian Johns-Manville, 17.3 by Patino, 16.54 by Amet and 16.54 by Financiere Belge. Ore reserves at the site are estimated at 22 million tons.

BELGIUM. 1962 production of stainless steel is planned by a new company formed by Allegheny Ludlum Steel Corp. of Pittsburgh, Evence Coppee & Cie of Brussels and Societe Anonyme Metallurgique d'Esperance-Longdoz of Liege. The 10 million dollar plant will have cold-rolling and finishing facilities for fabrication of flat-rolled stainless and special steel products.

The following is a summary of major industrial plants in the United States, Canada, and foreign countries, reported to INDUSTRIAL DEVELOPMENT during the month of October, 1960, by industries and industrial development organizations.

Number of employees is indicated by the code: A(Under 25); B(25-100); C(100-250); D(250-1,000); and E(over 1,000).

ALABAMA

Cherokee — Armour & Co, Robert L. James, V. Pres. & Gen. Div. Mgr.; agricultural nitrogen. Oper. date — 1962. 200-acre site. \$60 million. (C).

ALASKA

No Plants Reported.

ARIZONA

No Plants Reported.

ARKANSAS

Batesville — Configured Tube Products Co. (Subs. White-Rodgers Co.); gas burners. Oper. date — spring 1961. 62-acre site. 80,000 sq. ft. \$800,000. (C).

Fordyce — Fordyce Apparel Co., Theodore Daniels, Pres. & Gerald Hughes, Mgr.; men's & boys' slacks. In oper. 12-acre site. 35,000 sq. ft. (C).

Huntsville — Claymore Manufacturing Co.; garments. In oper. 15,000 sq. ft. (C).

West Memphis — ARECO Inc.; stain & pigments. Oper. date — Feb. 1961. 5-acre site. 10,000 sq. ft. (B).

CALIFORNIA

Chatsworth — Networks Electronic Corp., M. D. Patrichi, Pres.; infra-red lab. Oper. date — March 1961. 10-acre site. 25,000 sq. ft. \$1 million.

Lodi — Goehring Meat & Provision Co., Hwy. 99; meat packing & distr. 15-acre site. 20,000 sq. ft. \$325,000.

Palo Alto — Philco Corp.; space lab. Oper. date Dec. 1961. 250,000 sq. ft. (E).

Redding — Calaveras Cement Co. (Div. Flintkote); cement. Oper. date — Sept. 1961. \$14 million.

Los Angeles (Richmond Refinery) — Standard Oil Co. of Calif. (Oronite Div. of California Chem. Co. — subs. of Standard); paraxylene & orthoxylene. Oper. date — early 1962. \$17 million.

San Jose — International Business Machines Corp. General Products Div., O. M. Scott, Div. Pres.; development lab. Oper. date — late 1961. 150,000 sq. ft. (D).

San Mateo, Crocker Ind. Park — Holt, Rinehart & Winston, Inc., Alfred C. Edwards, Pres.; distr. center for publications. Oper. date — June 1961. 4-acre site. 70,000 sq. ft. \$400,000.

Santa Ana — Sierracin Corp., Fairview & Segerstrom Ave.; plastic windshields. 10-acre site. 50,000 sq. ft.

Santa Clara — Centra Cast Co. Inc., Steve T. Walsh, Pres., Gen. Mgr., 1065 Shulman Ave.; castings. \$500,000. (B).

Santa Rosa, Santa Rosa Ind. Park — Kushins' Inc., Jerry Kushins, Pres.; shoes. 62,000 sq. ft.

Signal Hill, Long Beach — Signal Oil & Gas Co., J. Howard Marshall, Exec. V. Pres.; refinery. Under constr. 30-acre site. \$40 million. (D).

Southern Calif. Area — United Carbon Co.; carbon black. Oper. date — 1961. \$5 million.

NEW PLANTS

COLORADO

No Plants Reported.

CONNECTICUT

Bristol — Ingraham Co., Robert E. Cooper, Jr., Pres.; electric clocks, watches. Oper. date — fall 1961. 15-acre site. 150,000 sq. ft. (D).

Danielson — Bullard Clark Co., G. D. Lodge, Pres.; mechanical rubber goods. Under constr. 39-acre site. 30,000 sq. ft. \$100,000.

Hartford — Hartford Gas Co.; central steam & chilled water plant. Under constr. \$3 million.

DELAWARE

No Plants Reported.

DISTRICT OF COLUMBIA

No Plants Reported.

FLORIDA

Ft. Lauderdale, Vision Park — Univis, Inc., Robert O. Barber, Pres.; eyeglass frames, lenses, hearing aids, plastic components for Armed Forces. 100,000 sq. ft. (D).

Ft. Meade — Armour Agricultural Chemical Co., Wm. Wood Prince, Pres.; phosphate rock extraction & processing. Oper. date — 1962. \$10 million. (D).

Jacksonville — Eddath Moving & Storage Co.; railroad etc. shipping hq. In oper. 40,000 sq. ft. \$250,000.

Lakeland — Acme Wellpoint Pumps, Inc., L. M. Ray, Pres.; water pumps & dewatering equip. assembling. In oper. 14,000 sq. ft. \$480,000. (C).

Miami — Coppertone Corp., A. J. Seibold, Gen. Mgr.; sun-tan lotion. 10,500 sq. ft. \$250,000.

Miami — DeLuxe Aluminum Ladders, Inc., Stan Sorenson, Pres.; aluminum ladders. In oper. (B).

Miami — Modern Age Furniture, Wm. Webb, Pres.; furniture. In oper. \$1.75 million.

Ocala — Automated Metals Corp., Henry N. Hansom, Pres.; aluminum parts for mobile homes & awnings. 12,400 sq. ft. (B).

St. Petersburg — Abilities Inc., Henry Viscardi, Jr., Pres.; electronics supplies. (B).

St. Petersburg — Navair Instruments Corp. of Fla., A. L. Petersen, Pres.; precision parts & prototypes of —. In Oper. (B).

Sanford — Hi Acres Concentrate, Inc.; C. E. Bradshaw, Pres.; citrus concentrates & cattle feed. In oper. (B).

Tampa — Shore Line Enterprises, Inc., C. A. Hollingsworth, Dir. Res.; frozen shrimp processing. In oper. (C).

Tampa — Trak Microwave Corp. 3,000 sq. ft. (B).

GEORGIA

Atlanta — United Merchants & Manufacturers' Homestead Div.; drapery distr. center. In oper. 18,000 sq. ft.

Atlanta — General Electric, Med. Voltage Switchgear Dept.; steel switchboard panels. In oper. 10,000 sq. ft.

Cordele — Bilray Inc. 66,000 sq. ft. (C).

Covington — Brunswick Corp. MacGregor Div., F. E. Troy, V. Pres.; golf balls. 15-acre site. \$2,000 sq. ft.

Clarksville — Outerwear Inc.; jackets. In oper. 12,000 sq. ft.

Griffin — Georgia-Griffin Fashions; apparel distr. center. (B).

Newton — Newton Manufacturing Co.; apparel. (B).

HAWAII

No Plants Reported.

IDAHO

No Plants Reported.

ILLINOIS

Barrington — Uarco Inc.; eng. res. lab. exec. ofcs. Under constr. 50,000 sq. ft.

Chicago — Videocraft Manufacturing Co.; deflection yokes. 25,000 sq. ft.

Des Plaines, Anderson Ind. Dist. —

Corite-Reynolds Corp., 455 Jarvis Ave. 22,000 sq. ft.

Galesburg — Gates Rubber Co.; hose. Oper. date — July 1961. 200,000 sq. ft. \$2 million. (D).

INDIANA

Logansport — Louisville Cement Co., cement. Oper. date — Jan. 1963. 700-acre site. \$10 million. (B).

IOWA

No Plants Reported.

KANSAS

Lawrence — J. S. Dillon & Son; bakery products. Oper. date — spring 1961. 7,000 sq. ft. \$250,000. (A).

Marion — Buffalo Petroleum Corp.; natural gasoline & liquefied petroleum. Beg. constr. Jan. 1961. \$4 million. (B).

Olathe — King Radio Corp.; aircraft radio & navigation equip. Oper. date — April 1961. 12-acre site. 18,000 sq. ft. \$350,000. (B).

KENTUCKY

Glasgow — P. Sorensen Manufacturing Co. Inc.; auto ignition parts. \$300,000. (A).

LOUISIANA

Leesville — Westwood Corp.; furniture. \$275,000.

MAINE

Wilton — Factory Rentals Inc., wood turnings. 250,000 sq. ft. (D)

MARYLAND

Ferndale — Lissberger Manufacturing Co. Inc., Albert E. Lissberger, Jr., Pres.; redwood lawn furniture. In oper. 20,000 sq. ft.

MASSACHUSETTS

Gardner — Harrington & Richardson Inc.; rifles & parts. In oper. 40,000 sq. ft. \$250,000. (C).

Gardner — Wildmann Corp.; furniture. Oper. date — Feb. 1961. 15,000 sq. ft. (B).

Natick — Camblock Corp.; block connectors mfg. terminal. In oper. 10,000 sq. ft. (B).

Natick — Marquardt Corp.; propulsion systems res. & dev. In oper. 15,000 sq. ft. (B).

New Bedford — Quaker Oats Co.; pet food. Oper. date — Sept. 1961. 64,000 sq. ft. \$1.5 million. (B).

Quincy — Pneumatic Scale Corp.; pkgg. machinery. In oper. 15,000 sq. ft. \$100,000. (C).

Watertown — White Motor Co.; distr. center. 42,000 sq. ft. (B).

Webster — Dupli-Tronics; plastics. Oper. date — Mar. 1961. 30,000 sq. ft. \$200,000. (B).

West Boylston — Printpak Inc.; pkgg. materials. In oper. 26,000 sq. ft. \$150,000. (B).

Westminster — Fitchburg Paper Co. Decotone Products Div.; paper products.

THE TOP TEN

The following ten states ranked highest in number of significant new plants reported in INDUSTRIAL DEVELOPMENT during the six month period ending November, 1960. The figure to the right represents each state's actual six-month total.

1. TEXAS	113
2. FLORIDA	107
3. PENNSYLVANIA	105
4. ILLINOIS	102
5. OHIO	97
6. PUERTO RICO	80
7. MISSOURI	59
8. MASSACHUSETTS	58
9. CALIFORNIA	54
10. TENNESSEE	46

Oper. date — May 1961. 17-acre site. 91,000 sq. ft. (C).

Worcester — Jamesbury Corp.; valves & hydraulic devices. Oper. date — March 1961. 82,000 sq. ft. \$750,000. (D).

MICHIGAN

Bad Axe — Universal Engineering Co., Jas. E. Wickson, Pres. 21,000 sq. ft.

Bay City — General Motors Corp. Chevrolet Bay City Div.; ofc. 75,000 sq. ft.

Bloomington — Pullman Industries; folding closet doors. In oper. 10,000 sq. ft. \$50,000. (B).

Dearborn — General Motors Corp. Truck & Coach Div., Jas. Gordon, Pres.; sls., serv., parts. 32,000 sq. ft.

Detroit — Carbide Tool Co., Alfred Conti, Pres.; tools. In oper. 13,200 sq. ft. (B).

Gladwin — Wolverine Camper Co., Art Renas, Pres.; mobile homes. 30,000 sq. ft.

Iron Mountain — Kimberly-Clark Corp., Wm. R. Kellett, Pres.; paper products, pkgg. materials. 29,325 sq. ft.

Kalamazoo — Shakespeare Co., H. G. Shakespeare, Pres.; fishing tackle, sporting goods. In oper. \$336,000. (D).

MINNESOTA

Golden Valley — Bloom Bros. Co., John Allen, V. Pres. & Mgr.; leather & cloth novelties. In oper. 20,000 sq. ft. \$200,000.

Golden Valley — Buhler Mill Engineering Co.; flour milling machinery ofc. & whse. \$200,000.

Golden Valley — Nortronics Co. Inc., Leonard E. Kronfeld, Pres.; electronic equip. Under constr. \$235,000.

Hastings — Smead Manufacturing Co.; ofc. supplies. 140,000 sq. ft. \$1.5 million. (C).

Mora — Mora Manufacturing Co., Laird Mork, Plant Mgr.; plastic products. In oper. 25,000 sq. ft. \$250,000. (B).

New Hope — National Connector Corp., Lowell Johnson, Pres.; electrical connectors. Under constr. 20,000 sq. ft. \$150,000. (B).

MISSISSIPPI

Green Springs — Coca Cola Bottling Co.; soft drinks. \$200,000. (B).

Meridian — Meridian Poultry Co.; poultry. \$150,000. (B).

Picayune — St. Regis Paper Corp.; containers. \$200,000. (C).

Vicksburg — American Metal Climax, Southwest Potash Div.; potassium nitrate. \$7 million.

MISSOURI

Corder — Securities Industries; sports-cabs. In oper. 10,000 sq. ft. (B).

De Soto — Chrome Line Casket Co.; caskets. In oper. 2,000 sq. ft. \$50,000. (B).

De Soto — Structural Components Inc.; laminated plywood products. In oper. 24,000 sq. ft. \$50,000. (B).

Fredericktown — Sho-Me Woodtreating Corp.; wood treatment. In oper. 20-acre site. (B).

Galesville — Holmes Concrete Block Co.; building materials. In oper. 10,000 sq. ft. \$25,000. (A).

Jefferson City — Security Window & Door. In oper. 8,000 sq. ft. \$100,000. (A).

Kansas City — American Cynamid Co. In oper. 35,000 sq. ft. \$110,000.

Kansas City — Bendix Corp.; steam generating. \$860,000.

Kansas City — Puritan Compressed Gas Corp. In oper. Medical & aero-space gases. 28,000 sq. ft. (A).

Kansas City — Sexton Printing Co., Don Sexton, Pres.; offset printing, etc. In oper. 15,000 sq. ft. (B).

New Madrid — New Madrid Garment Co.; ladies dresses. In oper. 10,000 sq. ft. (B).

Neosho — Cudahy Packing Co., H. M. Yagge, Mgr.; cheese. In oper. 28,000 sq. ft. (A).

NEW PLANTS

Waldo — Dierksen Homes Co. In oper. 38,000 sq. ft. \$100,000. (A).

MONTANA

No Plants Reported.

NEBRASKA

Beatrice & Auburn — Boonslick Manufacturing Co.; barrels & heads. In oper. (B).

Hastings — CCA Fertilizer; dry fertilizer. Oper. date — May 1961. \$8 million. (C).

Kimball — Antelope Gas Products; liquified gas. In oper. \$1 million. (A).

Lincoln — Kerrco Products Co.; Ray Kerr, Pres.; fiberglass furniture & items. Oper. date — early 1961. 6,000 sq. ft. (B).

Omaha — Fruehauf Trailer Co.; truck trailer bodies. (D).

Omaha — Western Electric; supply depot. Oper. date — early 1962. 150,000 sq. ft. \$2 million. (D).

Oshkosh — Midwee Inc.; electronics components. 20,000 sq. ft. (B).

NEVADA

No Plants Reported.

NEW HAMPSHIRE

No Plants Reported.

NEW JERSEY

Ashland — Abbotts Dairies Inc.; Richard J. Speirs, Pres.; distr. plant & South. N. J. Hq. Under constr. 11-acre site. \$200,000.

Avenel — Premier Die Casting Co. 6-acre site. 40,000 sq. ft.

Bloomfield — Hydromatics Inc.; valves. 40,000 sq. ft.

Dunellen — Greenbrook Industries (Affl. Arlen Trophy Co.). 10,500 sq. ft.

Elizabeth — Allied Chemical Co.; refrigerants & aerosol propellants. \$1 million.

Elizabeth — Great Eastern Wire Corp.; wire drawing. In oper. 20,000 sq. ft.

Englewood — John Sexton & Co.; foods. Oper. date — Sept. 1961. 114,000 sq. ft. \$1.25 million. (C).

Lafayette — Schering Corp.; toxicology lab. 65-acre site. \$65,000.

Lakewood — Torwico Electronics Inc.; electronic components. 25,000 sq. ft.

Linden — Cylinders Inc. In oper. 7-acre site. 96,000 sq. ft.

Linden — General Electric Co.; jet engine repair. 20,000 sq. ft.

Lodi — Paramount Foam Inc.; polyester urethane foam. 100,000 sq. ft.

Morris Plains — Warner Lambert Pharmaceuticals Co.; ethical drugs res. lab. Oper. date — July 1961. 105,000 sq. ft.

Mt. Tabor — Clegg Laboratories (Div. Clegg, Inc.); electron tubes, pulse & VHF equip. 12,000 sq. ft.

Newark — D-H Corp.; distr. of floor coverings. 66,000 sq. ft.

New Brunswick — Colgate-Palmolive Co.; Geo. H. Lesch, Pres.; research. Oper. date — spring 1962. 75-acre site. 200,000 sq. ft. \$Multi-million.

New Brunswick — Frito Co. 15,000 sq. ft.

Pennsauken, Pennsauken Ind. Park — Standard Brands Inc.; Blue Bonnet & Fleischmanns margarine. Oper. date — late spring 1961. 17.6-acre site. 50,000 sq. ft. \$2 million.

Washington Twp. — W. J. Vernon Fabricating Co. In oper. 12,000 sq. ft.

West Caldwell — Electro-Tec Corp. 10-acre site. 23,000 sq. ft.

Woodbury — Shell Chemical Co. (Div. Shell Oil Co.); polypropylene. Oper. date — 1962. \$20 million.

NEW MEXICO

No Plants Reported.

NEW YORK

Edmeston — Edmeston Dress Co.; garments. (B).

Niagara Falls — Pyron Co. (unit American Metal Climax Inc. Amco Div.), Alfred E. Beck, Jr., Pres.; hydrogen-reduced iron powder. Oper. date — spring 1961. 6-acre site. \$1.5 million. (B).

Port Jervis — Channel Master Corp.; television tubes. Under constr. 30,000 sq. ft. (C).

Poughkeepsie — Bond Clothes Inc.; men's coats. In oper. (C).

Schenectady — Campbell Plastics Co. In oper. (B).

Schenectady — General Electric Co.; manufacturing lab. Begin constr. early 1961. \$2.5 million.

Tarrytown — Simmonds Aerocessories Inc.; exec. ofcs. & res. center. \$1 million.

Woodside — Armor Elevator Co.; elevators. Under constr. 70,000 sq. ft.

Yonkers — Yorkville Paper Co.; pkg. materials mfg. & whse. 100,000 sq. ft.

NORTH CAROLINA

Charlotte — Glamour Products Inc.; sun lamp assembling. (B).

Charlotte — National Rolling Co.; lead sheets. Over \$100,000. (A).

Cornelius — Reeves Bros. Inc.; foam products fiber. (C).

Franklin — Peakline Furniture Manufacturers, Karl Ketchum, Sr., Pres.; furniture. 20,000 sq. ft. \$72,000. (B).

Gastonia — Gastonia Knitwear Co.; knit sweaters. (C).

Gastonia — Rutland Fire Clay Co.; home repair materials. Over \$100,000. (A).

Greensboro — Olympic Chemical Co.; polyurethane foam. (B).

Greensboro — Ward Steel Co.; custom-cutting & slitting. Over \$100,000. (A).

Hickory — Beagle Brand Hosiery Inc.; greige goods hosiery. Over \$100,000. (A).

High Point — C. & L. Fibre Glass Products Co.; Joe Cox, Prtnr.; fibre glass boats. In oper. 10,000 sq. ft. \$20,000. (A).

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NEW PLANTS

High Point — Marspring Corp., Sidney Klein, Pres.; spring cushion units. In oper. 20,000 sq. ft. \$100,000. (C).
Monroe — Sutton Park Textiles; knitted collars & cuffs. (D).

NORTH DAKOTA

No Plants Reported.

OHIO

Brooklyn Heights — Frigidaire Sales Corp. 20,000 sq. ft. \$300,000.
Cleveland — Brush Beryllium Co. Oper. date — late spring 1961. 15-acre site. 90,000 sq. ft. \$3 million.
Cleveland — Sun Oil Co.; petroleum. 14,000 sq. ft. \$300,000.
Cleveland, Mentor Ind. Park — W. S. Tyler Co.; woven wire cloth, screening machinery. 500,000 sq. ft. \$5 million.
Dayton, Moraine Ind. Park — Alisco Aluminum Building Products Inc. \$250,000.
Dayton — Duberstein Iron & Metal Co. \$500,000.
Dayton — Wright Air Dev. Div.; sonic fatigue test lab. \$7 million.
Fremont — Howard Zink Corp.; whse. Oper. date — Jan. 1961. 20,000 sq. ft. \$175,000. (B).
Hamilton — Champion Paper & Fiber Co.; ind. water disposal triment. Under constr. \$432,000.
Hillsboro — Moore Drop Forging Co. \$800,000.
Hubbard — Sherwin Williams Co.; paint containers. 26,000 sq. ft. \$650,000.
Lima — Superior Coach Corp.; buses, ambulances & funeral car bodies. 94,000 sq. ft. \$1 million.
New Carlisle — Standard Overall Co. 25,000 sq. ft. \$125,000.
North Lima — Pipe Line Service Corp.; pipe wrapping. \$1 million. (B).
Toledo, Expressway Ind. Park — Maumee Chemical Co.; pharmaceuticals. 380,000 sq. ft. \$1 million. (B).
Stow, Stow Ind. Park — Butler Bros. 200,000 sq. ft. (D).
Warrensville Heights — Lincoln Bearing Co. Under constr. \$350,000.

OKLAHOMA

No Plants Reported.

OREGON

Beaverton — Tektronix Inc.; electronic devices. Under constr. 300-acre site. \$1 million. (D).
Portland — Pacific Machinery & Tool Steel Co.; whse. & ofc. Oper. date — early 1961. 50,000 sq. ft. \$275,000.
Portland — Union Oil Co., J. E. McCaffrey, Div. Mgr.; ofc. bldg. Oper. date — Aug. 1961. \$600,000.

PENNSYLVANIA

Bala Cynwyd — Magna-Bond Inc.; protective coatings. In oper. \$300,000. (B).
Bristol — Rohm & Haas Co.; whse. In oper. 130,000 sq. ft. \$800,000.
Chambersburg — American Can Co. Marathon Div.; containers. 145,000 sq. ft. (D).
Cornwall — Bethlehem Cornwall Corp.; iron ore concentrate. Oper. date — 1962. \$9.8 million. (C).
Emmaus — Rayflex Manufacturing Co.; elastic fabrics. Oper. date — late 1960. 50,000 sq. ft. \$565,000. (C).
Emporium — Sylvania Electric Products Inc. (Subs. Gen'l. Telephone & Electronics Corp.); Matthew D. Burns, Pres.; electron tube research & dev. center. Oper. date mid-1961. 42,000 sq. ft.
Freeland — Major Industries Chicago; air purifiers. 4.5-acre site. \$337,000. (C).
Harrisburg — Hensel & Sons, Inc.; distr. whse. for drugs. Oper. date — spring 1961. 100,000 sq. ft. \$500,000. (B).
Hatboro — Air Shields Inc.; hospital equip. Oper. date — March 1961. \$200,000. (C).

Indiana — United Door Corp.; aluminum storm & screen doors. 39,000 sq. ft. \$300,000. (C).

Lansford — Carbon-Schuykill Ind. Dev. Corp.; table lamps. 62,300 sq. ft. \$400,000. (C).

Mahonington — Universal-Rundle Corp.; vitreous china plumbing fixtures. Oper. date — Jan. 1961. 19,000 sq. ft. \$225,000. (D).

Monongahela — West Penn Power Co.; electric power. Oper. date — Jan. 1961. \$43 million.

Old Forge — Dymo Industries Inc.; labeling & identification equip. 29,000 sq. ft. \$189,000. (C).

Philadelphia — Boulevard Baking Co.; bakery products. Oper. date — April 1961. (C).

Riverside — Lynn Dress Co.; dresses. In oper. (B).

Sewickley Twp. — International Paper Co.; corrugated shipping containers. Oper. date — early summer 1961. 20-acre site. (C).

Wyndmoor — George Veron Co.; electronics. \$250,000. (B).

PUERTO RICO

Adjuntas — Emily Inc., Juan Montes, Mgr.; women's undergarments. In oper. 11,423 sq. ft. \$40,000. (C).

Aguas Buenas — Caribbean Commercial Co.; processing honey. 5,000 sq. ft. \$15,000. (B).

Arecibo — Calbiochem Caribe Inc.; biochemicals. 11,500 sq. ft. \$30,000. (B).

Arecibo — Nutritional Specialties Inc.; vitamins. In oper. 11,500 sq. ft. \$57,000. (B).

Arecibo — Porto Mills Div. B, Jose Santisteban, Mgr.; children's undergarments. In oper. 11,762 sq. ft. \$25,000. (D).

I. D. CALENDAR

DECEMBER 12-16, 1960

American Management Association, Fundamentals of financial management for the junior financial executive, Seminar #1279-02, The Hotel Astor, New York City, New York. Reservations may be made through AMA, Inc., 1515 Broadway, Times Square, New York 36, New York.

MARCH 6-10, 1961

American Management Association, Fundamentals of financial management for the junior financial executive, Seminar #1279-03, LaSalle Hotel, Chicago, Illinois. Reservations may be made through AMA, Inc., 1515 Broadway, Times Square, New York 36, New York.

APRIL 9-11, 1961

American Industrial Development Council, 36th Annual Conference, Sheraton-Dallas Hotel, Dallas, Tex.

JUNE 26-30, 1961

American Management Association, Fundamentals of financial management for the junior financial executive, Seminar #1279-91, AMA Academy, Saranac Lake, New York. Reservations being made through AMA, Inc., 1515 Broadway, Times Square, New York 36, New York.

Arecibo — Samac Motor Corp., Jose Macias, Mgr.; fractional horsepower motors. In oper. 11,735 sq. ft. \$31,000. (B).

Barceloneta — International Security Hardware Corp. of America, Anthony Rivera Rey, Mgr.; installation numerals. In oper. 11,289 sq. ft. \$40,000. (B).

Bayamon — Caribe Carton Corp.; cartons. In oper. 4,000 sq. ft. \$20,000. (B).

Bayamon — Grenock Sales Corp., Egon Berliner, Mgr.; women's undergarments. In oper. 8,100 sq. ft. \$20,000. (B).

Bayamon — Plastic Extruding Corp., Harry Cuevas, Mgr.; plastics — extruding, binding etc. In oper. 5,800 sq. ft. \$5,000. (B).

Bayamon — Precision Seat Cover Corp.; plastic seat covers. In oper. 23,000 sq. ft. \$40,000. (C).

Caguas — Cellulaire Inc.; women's foundation items. \$20,000. (B).

Caguas — Granada Mills Inc.; women's undergarments. In oper. 22,552 sq. ft. \$100,000. (B).

Carolina — Island Precision Corp.; watch crowns, screw machine products. 5,730 sq. ft. \$70,000. (B).

Carolina — Italy Glass Inc.; mosaics. 4,800 sq. ft. \$50,000. (B).

Carolina — Sealy Mattress Co. of Puerto Rico Inc., Jose Irizarry Lugo, Mgr.; mattresses & box springs. In oper. 13,200 sq. ft. \$50,000. (B).

Carolina — Tedros Corp., Murray Greene, Mgr.; women's undergarments. In oper. 11,525 sq. ft. \$40,000. (C).

Catano — Weimar of Puerto Rico Inc., Richard Weir, Mgr.; plastic tiles. In oper. 6,900 sq. ft. \$37,000. (B).

Cayey — Rico Glove Corp. #2; leather gloves. 11,500 sq. ft. \$35,000. (C).

Coamo — Per Stahl; tools, household wares. In oper. 11,460 sq. ft. \$50,000. (C).

Coamo — A. B. & Svenson Segestrom; tools. In oper. 11,460 sq. ft. \$50,000. (C).

Coamo — Surtex Glove Corp.; gloves. Oper. date — March 1961. 11,560 sq. ft. \$30,000. (C).

Comerio — El Morro Shoe Corp.; women's shoes. In oper. 5,000 sq. ft. \$35,000. (B).

Dorado — Playtex Caribe Inc.; women's undergarments. In oper. 53,588 sq. ft. \$400,000. (D).

Fajardo — Caribe Staple Co., Inc.; industrial staples. In oper. 11,498 sq. ft. \$25,000. (B).

Guaynabo — Farmers Rice Co. of Puerto Rico Inc.; rice processing. Oper. date — March 1961. \$330,000. (B).

Guaynabo — Grosjean Rice Milling Co. of Puerto Rico, C.E.; rice processing. 19,000 sq. ft. \$100,000. (B).

Gurabo — D. W. G. Cigar Corp.; tobacco stripping & selecting. 22,552 sq. ft. \$100,000. (C).

Hato Rey — Cambridge Inc.; women's sportswear. 10,000 sq. ft. \$10,000. (B).

Hato Rey — Essex Inc., Oxford Inc., Alfred Sherman, Mgr.; women's sportswear. In oper. 6,000 sq. ft. \$10,000. (B).

Hato Rey — Marcia Brassiere Corp., Louis Critelli, Mgr.; women's undergarments. In oper. 7,891 sq. ft. \$80,000. (C).

Hato Rey — Metal Works Inc., Miguel Feliciano, Mgr.; fluorescent lighting fixtures & metal stamping. In oper. 4,000 sq. ft. \$30,000. (B).

Loiza — Fleetwood Novelties Inc., Louis Seamon, Mgr.; small leather goods. In oper. 11,461 sq. ft. \$20,000. (B).

Luquillo — Princetta Lingerie Inc.; women's undergarments. In oper. 11,628 sq. ft. \$30,000. (B).

Maunabo — Judith Berman; doll pajamas. 11,464 sq. ft. \$35,000. (C).

Mayaguez — Continental Manufacturing Corp.; women's dresses. In oper. 11,500 sq. ft. \$30,000. (B).

information about

Denver

for industrial site seekers

Gateway to the West, Denver is an ideal location for manufacturing and warehousing operations. Proof of Denver's ability to attract is a phenomenal 51.1% population increase in ten years within the Denver Metropolitan Area.

There are two major reasons for this tremendous expansion: (1) recreation facilities—a big factor in industrial development today—are outstanding, making Denver one of the nation's most delightful communities for living, and (2) unusually broad industrial diversification makes Denver less subject to economic upheavals than the average city.

The Rock Island has many choice industrial sites available in the Denver area. If the following information about Denver interests you, get in touch with us for more specific details. We'll work with you in strictest confidence.

LABOR: Skilled stable labor force of 346,700 in the Denver Metropolitan Area; increase of employment of 57% in ten years; median education 12.0 years.

POWER: Five generating stations with a gross capability of 745,000 KW with a planned five year expansion of 344,000 KW; 429,000 MCF peak day capacity of natural gas; plentiful supply of fuel oil.

TRANSPORTATION: The Rock Island and 5 other railroads; 7 airlines; 146 interstate and intrastate truck lines; 6 intercity bus lines.

HOUSING: 88,438 new housing permits in ten years ('50-'59); average property value is \$17,000. Six urban renewal projects in action and planning stages for which funds from the capital improvements program have been allocated.

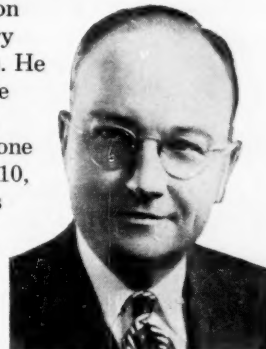
THE COMMUNITY: 108 elementary and high schools with a total enrollment of 86,951 and a pupil-teacher

ratio of 27.2 to 1; private and parochial school enrollment of 20,000; 99 parks within the city limits with a total of 2,382 acres; 20,000 acres of mountain parks nearby; 32 hospitals served by approximately 1,250 doctors; exceptionally fine recreational and cultural facilities; ample water supply for recreation, consumption and industry.

COMMERCIAL SERVICES: 1,289 S.I.C. classifications, representing 13,203 firms; strong diversification of industry makes Denver exceptionally free from the effects of economic fluctuations.

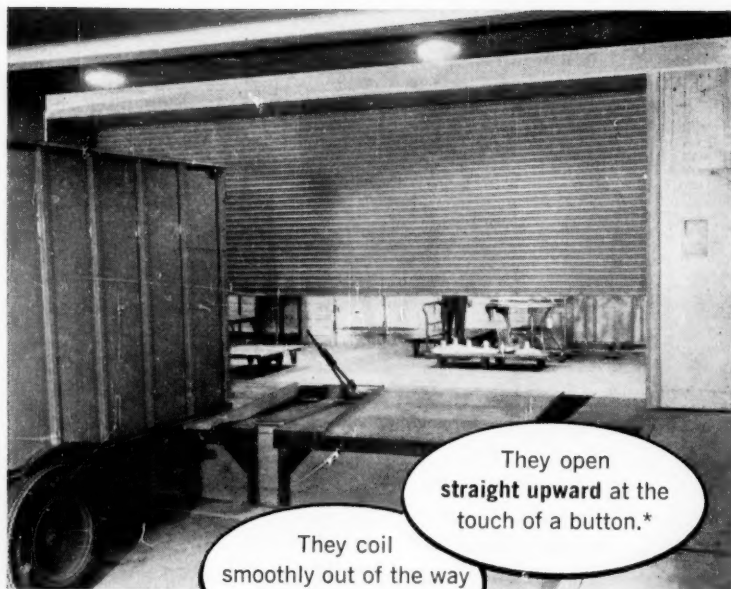
CLIMATE: Mean temperature in summer, 70.2°; in winter, 30.8°; average annual rainfall 14.20".

The man who knows Denver industrial sites like the back of his hand is Milton H. Booth, Assistant Traffic Manager. Mr. Booth and his staff are typical of Rock Island specialized personnel who, during the past three years, have helped locate over a billion dollars of private industry along Rock Island tracks. He can help you find just the spot you need. For full details write, wire, or phone Milton H. Booth, Room 310, Midland Federal Savings and Loan Building, Denver 2, or Industrial Department 162, Rock Island Lines, Chicago 5.



ROCK ISLAND LINES

*The railroad of planned progress
... geared to the nation's future*



They open straight upward at the touch of a button.*

They coil smoothly out of the way above the opening.

They clear the doorway quickly — from jamb to jamb and from floor to lintel.

They stay out of reach of damage by wind or vehicles.

Kinnear Steel Rolling Doors

boost door efficiency

All floor and wall areas around the doorway are always fully usable.

Ceiling space also remains clear, for unimpeded use of overhead cranes, hoists, conveyors, ductwork, lighting, or other overhead equipment.

The tough, flexible all-metal curtain assures long service, low maintenance costs, extra protection against fire, wind, intrusion, vandalism.

Heavy galvanizing (1.25 ounces of pure zinc per square foot of metal, ASTM Standards) adds resistance to weather, wear, and corrosion.

Kinnear Rolling Doors are built in any size. Write for information, or for recommendations on your door needs.

*—when equipped with Kinnear Motor Operators. Also available with manual lift, crank, or chain control. Kinnear's torsion-spring counter-balance assures smooth, easy door operation under all conditions.

The KINNEAR Mfg. Co.

FACTORIES:

1600-20 Fields Ave., Columbus, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.

KINNEAR
ROLLING DOORS
Saving Ways in Doorways

NEW PLANTS

Mayaguez — Southland Manufacturing Co.; men's & boys' apparel. Oper. date — March 1961. 11,491 sq. ft. \$75,000. (B).

Rio Piedras — Caribe Crown Cap Corp., Augusto Durand, Mgr.; crown caps. In oper. 11,522 sq. ft. \$150,000. (B).

Rio Piedras — Jaime Inserni Co., Jaime Inserni, Mgr.; women's undergarments. In oper. 5,807 sq. ft. \$20,000. (B).

Rio Piedras — Kimberley Clark Corp. of Puerto Rico; paper toiletry items. Oper. date — Jan. 1961. 22,567 sq. ft. \$119,000. (B).

Rio Piedras — Olympic Mills Corp.; knit undergarments. 15,000 sq. ft. \$150,000. (B).

San Lorenzo — Commonwealth Electronics Corp.; tape recorders, toy watches. In oper. 11,500 sq. ft. \$20,000. (B).

Santurce — Carbide & Abrasive Tool Corp., Robert H. Thomas, Mgr.; carbide cutting tools. In oper. 3,445 sq. ft. \$50,000. (B).

Santurce — Jose Benito Diaz; metal furniture. 3,000 sq. ft. \$25,000. (B).

Santurce — Rexach Asphalt Corp., German Vazquez Lourido, Mgr.; bituminous concrete. In oper. 10,000 sq. ft. \$250,000. (A).

Toa Baja — Keystone Fabrics Inc.; knit fabric. In oper. 2,851 sq. ft. \$15,000. (B).

Toa Baja — Industrie Italiane di Puerto Rico Corp.; asbesto-cement tubes, marble items. In oper. 50,000 sq. ft. \$350,000. (C).

Trujillo Alto — Telastic Corp.; woven yarn & elastic fabrics. In oper. 33,828 sq. ft. \$65,000. (B).

Utua — Porto Mills Inc. Div. A., Jose Santisteban, Mgr.; boys' knit undergarments. In oper. 11,497 sq. ft. \$80,000. (D).

Vega Baja — Sobel Puerto Rico Inc., Astolfo Rodriguez, Mgr.; costume jewelry. In oper. 11,475 sq. ft. \$15,000. (C).

Villalba — Frankie Enterprise Co. Inc.; sportswear. 2,500 sq. ft. \$20,000. (B).

RHODE ISLAND

Providence — Mays Manufacturing Co. Inc., W. Clarke S. Mays Jr., Pres.; precision metal parts & electronic components. Oper. date — June 1961. 20,000 sq. ft. \$160,000. (C).

West Warwick — American Tube & Controls Inc., C. H. Kirk, Pres.; plumbing & heating equip. Oper. date — 1961. 40,000 sq. ft. \$250,000. (B).

SOUTH CAROLINA

Blacksburg — Burton-Dixie Corp., T. D. Wilkins Jr., V. Pres.; polyether foam. Under constr. 50,000 sq. ft. \$500,000. (C).

Clinton — C. B. Metals Inc.; metalworking. Oper. date — early 1961. 100,000 sq. ft. (D).

Mullins — Mullins Industries Inc. (Subs. Draper Corp.); wood & metal textile machine parts. In oper. 50,000 sq. ft. (C).

Smoaks — Youngwear Products Inc., Carl Fargnoli, Plant Mgr. In oper. 32,808 sq. ft.

West Columbia — Argus Cameras; projectors. Oper. date — fall 1961. 110,000 sq. ft. (D).

SOUTH DAKOTA

No Plants Reported.

TENNESSEE

Chattanooga — Chattanooga Wheelbarrow, R. T. Faucette Jr., Pres.; wheelbarrows, carts, boat trailers. In oper. 5-acre site. 60,000 sq. ft. \$230,000. (B).

Chattanooga — Vulcan Iron Works Inc., H. G. Warrington, Pres.; heavy machinery. In oper. 6-acre site. 70,000 sq. ft. \$750,000. (B).

TEXAS

Corpus Christi — Suntime Refining Co., G. E. Wynn, Pres.; styrene. Oper. date — spring 1962. \$5 million.

Dallas, Casa Linda Ind. Dist. — American Beauty Macaroni Co. Inc., Peter F. Vagnino, Pres.; spaghetti products. Oper. date — early 1961. 100,000 sq. ft. \$500,000. (C).

DIRECTED BY

Richard Edmonds . . . 1882-1930
Frank Gould 1930-1943
William Beury . . . 1943-1955
McKinley Conway . . 1956

MANUFACTURERS RECORD

(IN REVIEW)



"What Enriches Any Region
Enriches The Nation"

DECEMBER 1886

(AS ABSTRACTED MORE THAN 70 YEARS LATER)

BALTIMORE, MD.

What of The Future

For some months the whole financial world has been passing through one of the most remarkable epochs in its history. When the great house of Baring Bros., that ranked with the Rothschilds, failed, all financial matters were upset; financial engagements almost without number, both in Europe and America, were of necessity broken; business men of unquestioned integrity and ability were in thousands of cases compelled to abandon enterprises that they had undertaken in good faith. Since last November all monetary interests have been in this condition, and the shipment of \$70 million of gold to Europe during the last few months has served to retard the return of confidence to the financiers and business men of America. These things have given the "croakers" a chance to proclaim the general decadence of everything. Rarely ever before have they had such an opportunity to say "I told you so," and they have been more energetic in doing this than in anything else in their lives. That disasters have come to many through no fault of their own, nor even through any fault in the business and financial interests of the United States, but through a panic that started elsewhere, and which would have produced universal disaster but for the soundness of American finances, enabling us to save Europe from well-nigh universal bankruptcy, has no effect upon these croakers . . .

The business men of this country are too apt to forget the soundness of America's vast progress. The United States is today almost the only great country in the world whose future is brighter than its past. Great Britain has in many respects reached the limit of its greatness. It can no longer be the manufacturing center of the world, for we have taken

the foremost position in that line. Its vast iron and steel business is yearly increasing in cost of production, while ours is decreasing. It cannot meet the world's ever growing demand for iron and steel, because it cannot increase its production to any great extent in competition with this country. It produced no more pig iron in 1890, notwithstanding the high prices prevailing, than in 1882, while we more than doubled our output. Much of its ore it imports from far distant regions. Its cotton is all imported. It spends about \$750 million a year for foreign foodstuffs. On the continent every nation is burdened with debt, and none can ever hope to pay off its obligations. Measured by their natural resources and their possibilities, they are bankrupt. In all of them the cost of production and of living is steadily increasing.

In the United States we have scarcely laid the foundation of our future greatness. In natural resources we are richer than all of Europe combined; we are paying our debts faster than they are due; we have barely scratched the ground in the development of our mineral wealth; we are rich enough to stand a decrease last year of 900 million bushels of grain as compared with 1889, on account of bad weather; we are rich enough in addition to this to send \$70 million in gold to Europe within a few months without creating any financial trouble, and that, too, after Europe had unloaded on us millions of dollars of our stocks, because our securities were the only ones in the world that found a cash market when Barings and others were trying to save themselves. In ten years, from 1880 to 1890, we have added \$2 billion to our capital invested in manufactures, an increase of nearly 75 percent. In the same time the value of our manufactured products has risen from \$5.3 billion to \$8.6 billion, a gain of \$3.3

billion, or, in other words, we are now producing manufactured goods at the rate of \$3.3 billion a year more than we were ten years ago. The increase in capital invested in manufactures in ten years, from 1880 to 1890, was greater than the entire amount of capital invested in 1870, or only twenty years ago. In these ten years the growth of our manufacturing interests was greater than the growth from the settlement of America up to 1870. In these ten years we have built 75,000 miles of railroad, almost as much as our total mileage in 1880.

The world affords nothing with which to compare our marvelous advancement. And yet, stupendous as has been the progress of the last ten years, the coming ten will show a still greater advance. The increase in our population in these coming ten years will be about 18 million people, or as many as the total population at present of the fourteen Southern States, from Maryland to Texas. Think for a moment of what it means to add to our country in ten years as many people as now live in the entire South.

This is a country of infinite resources and unbounded energy, increasing in wealth and population as no other country ever did in the world's history, and we are just getting ready for the real work of development of the marvelous wealth-creating possibilities of the South—the richest country, according to natural resources and opportunities, on the globe—for building up a mighty empire in the Northwest, for creating a mercantile marine which shall open to our trade the markets of South America and the West Indies, and for constructing the Nicaraguan canal, which will revolutionize the commerce of the whole world in our favor.

This is not the country for the croaker.

J.W. SKINKLE, President

J. KOENIGSBERG, Secy

LEO RASSIEUR, Vice Pres't

**THE CONSOLIDATED
ICE MACHINE CO.**

MANUFACTURERS OF
**ICE MAKING
AND
REFRIGERATING MACHINERY**

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MACHINES

IN OPERATION

Making Ice—Refrigerating, Breweries, Packing Houses, Cold Storage Houses, Oil Refineries, Creameries, Hotels, &c.

BUY THE BEST AND SAVE MONEY.

All machines built by us are made to gauge and templet. Highest economy secured. Best results obtained. Machines in steady operation for more than ten years.

NO FAILURES.

NEW PLANTS

Dallas — Ling-Temco Electronics Inc., Robert McCulloch, Chm. of Brd. (Temco Aerosystems Div.); eng. ofcs. & labs. 20,000 sq. ft. \$475,000.

Dallas, Brook Hollow Ind. Dist. — Todd Co. (Div. Burroughs Corp.), Jack N. Friedman, Print. Production Mgr.; bank checks & business forms. Oper. date — March 1961. \$375,000.

Edgewood — Feldt Manufacturing Co., Max Feldt, Pres.; western apparel. In oper. (C).

El Paso — Rio Brick Co., Mitchell Landers, Pres., 6700 Doniphan Dr.; bricks. In oper. \$250,000. (B).

Green's Bayou — Index Chemical Co. (Div. Pennsalt Chemical Corp.), C. A. Dickey, V. Pres.; barite processing. \$500,000.

Houston — City Poultry Processing Co., Lawrence Smith, V. Pres. & Gen. Mgr., 4500 Cochran St.; poultry processing. In oper. \$300,000. (B).

Houston — Columbian Carbon Co.; carbon black. \$1 million. (B).

Houston — Plastic Applicators Inc., G. J. Dueterberg, Pres., 7020 Katy Rd.; pipe-coating. \$250,000.

McGregor — Rocketdyne (Div. North American Aviation), Thos. E. Myers, Mgr.; production dev. lab. 10,000 sq. ft. \$230,000.

San Antonio — Forestier Sheet Metal Works, Dan Forestier, Pres., 1338 North W.W. White Rd.; food handling equip. In oper. 4-acre site. 15,000 sq. ft. (B).

San Antonio — Goodyear Tire & Rubber Co., W. R. Ramzy, Dist. Sls. Mgr., 631 North W.W. White Rd.; tires, household appliances dist. ofc. & whse. Oper. date — Jan. 1961. 3.5-acre site. 46,000 sq. ft. \$250,000. (B).

San Antonio — Mobil Oil Co. (Div. Socony Mobile Inc.), Wade Walles, Dist. Sls. Mgr., 241 North W.W. White Rd. Pe-

troleum products dist. ofc. & whse. In oper. 14-acre site. 4,000 sq. ft. ofc., 26,000 sq. ft. whse. \$150,000. (B).

Texas City — Republic Oil Refining Co. (Div. Plymouth Oil Co.), Walter S. Halahan, Pres., Box 119; hydeal. Oper. date — May 1961. \$15 million.

UTAH

Woods Cross — Lloyd A. Fry Roofing Co.; asphalt roofing. Oper. date — spring 1961. 100,000 sq. ft. (B).

VERMONT

No Plants Reported.

VIRGINIA

Alexandria — Thorington Construction Co., Nathan Thorington, Pres.; pre-stressed concrete. Under constr. \$165,000.

Cape Charles — Raymond Concrete Pile Co.; piling for Chesapeake Bay project. \$2 million. (D).

Danville — Corning Glass Works, William C. Decker, Pres.; specialty glasses. Constr. date — Jan. 1961. Oper. date — early 1962. 89-acre site. 190,000 sq. ft. (C).

Norfolk — Old Dominion Uniform Service, Oscar Stempler, Pres.; industrial uniform laundry. Oper. date — Jan. 1961. 1-acre site. 13,775 sq. ft. \$250,000. (B).

Richmond — Robertshaw-Fulton Controls Co., Thomas T. Arden, Pres.; hq. facility. Oper. date — summer 1962. 6-acre site. 35,000 sq. ft. (E).

Staunton — Staunton Manufacturing Co.; men's apparel. Constr. date — spring 1961. (D).

WASHINGTON

Vancouver — American Cynamid Co.; paper industry chemicals. Oper. date — by 1961. 12-acre site. \$1 million.

WEST VIRGINIA

Grafton — Baby World Inc.; plastic toys. In oper. (C).

South Charleston — Union Carbide; lab. 130,300 sq. ft. \$Multi-million.

WISCONSIN

Menasha — American Can Co. Marathon Div., John W. Reimer, Plant Mgr.; food pkgs. Oper. date — mid-summer 1961. 22-acre site. 145,000 sq. ft. (D).

Milwaukee — Mueller Industries Inc.; foundry. (C).

Oshkosh — Leach Co., Elmer Leach, Pres.; refuse collection bodies, logging & utility co. tools. Oper. date — early 1962. 40-acre site. \$1 million.

Pewaukee — Doelger & Kirsten Inc.; heavy machinery. 7.2-acre site. 40,000 sq. ft. (B).

Princeton — Westfield Crate & Pallet Co. In oper. 9600 sq. ft. \$60,000. (B).

Shawano — Eagle Knitting Mills Inc., Arthur Goldstein, Pres. In oper. 15,000 sq. ft. (C).

Sparta — Spartek Inc.; plastic & metallic coatings. 95,000 sq. ft. \$55,000. (B).

WYOMING

No Plants Reported.

CANADA

ALBERTA

No Plants Reported.

BRITISH COLUMBIA

Bridge River — British Columbia Electric Co.; hydro-electric plant "Bridge River #2." In oper. \$56.5 million.

Ft. Nelson — British Columbia Hydro; electric power. Oper. date — late 1960. \$500,000.

Prince Rupert — Columbia Cellulose Co. Ltd.; acetate & viscose pulp research center. Oper. date — June 1961. \$400,000.

Vancouver — National Harbours Board; animal feeds. \$300,000.

MANITOBA

St. James — Haffmans & Crosfield (Canada) Ltd., 880 Madison St.; industrial raw materials distr. In oper. 24,000 sq. ft. \$250,000.

Winnipeg — Nuclear Enterprises Ltd., Edward A. Speers, Gen. Mgr.; res. & dev. labs, machine shop for plastics mfg. In oper. 14,000 sq. ft. \$100,000.

Winnipeg, Inkster Ind. Prk. — Selkirk Cabinet Ltd., 1390 Church Ave.; furniture. In oper. 3-acre site. 18,000 sq. ft. \$150,000. (B).

NEW BRUNSWICK

No Plants Reported.

ONTARIO

Brampton — Mastex Industries Ltd., 134 Kennedy Rd.; polythene film for pkging. In oper. 15-acre site. 75,000 sq. ft. (C).

North York — World Carpet Mills Ltd., N. McKissock, Gen. Mgr., 135 Bentworth Ave.; carpets. In oper. 35,000 sq. ft.

Park Royal, Toronto — Canadian Broomwade Ltd. (Subs. Broom & Wade Ltd. of England), North Sheridan Way; compressed air equip. 6-acre site. 40,000 sq. ft.

Toronto — Central Store Fixtures & Furniture Manufacturing Ltd., W. S. Frank, Pres., King & Dufferin Sts.; store fixtures & furniture. 15,000 sq. ft.

Toronto — Pathex (Canada) Ltd., 74 Rialside Rd.; metal working & plastics machinery. 3-acre site. 15,000 sq. ft.

Toronto — Vick Chemical Inc. (Subs. Vick Chemical Co.), W. A. Judd, Plant Mgr., Hwy. 400; pharmaceutical & medicinal products. 10-acre site. 90,000 sq. ft.

PRINCE EDWARD ISLE

No Plants Reported.

QUEBEC

No Plants Reported.

SASKATCHEWAN

No Plants Reported.

NEWFOUNDLAND

Northern area — Canadian Johns-Manville Co. Ltd., Patino of Canada Ltd., Amet Corp. Inc. & Financiere Belge de L'Asbest-Ciment, S.A.; asbestos ore — fiber mill, crusher bldg., dry rock storage, whse, service bldg. \$18 million. (D).

NOVA SCOTIA

No Plants Reported.

FOREIGN

Belgium — Allgheny Ludlum Steel Corp., E. J. Hanley, Pres. (Pittsburgh), & Evence Coppee & Cie (Brussels), & Societe Anonyme Metallurgique d'Esperance-Longdoz (Liege); steel. Oper. date — 1962. \$10 million.

Colombia, Bogota — British American Turkish Tobacco Co. (BAT); cigarettes. \$1.7 million.

Denmark, Grenaa, Jutland — Dansk-Norsk Kvaelfstoffabrik I/S (Subs. of Norwegian Hydroelectric Nitrogen Factory Ltd.) & Danish Cooperative Fertilizer Co. & Danish Sulfuric Acid & Superphosphate Factory; nitrogen. Oper. date — 1963. \$14.5 million. (C).

Eritrea, Asmara — Societa Elettrica Dell'Africa Orientale (SEDAO); thermal plant. \$3.2 million.

Greece, Megalopolis — Greek Public Power Corp.; steam-electric power. Constr. date — 1963. \$4 million.

India, Adilabad — Amdija Pradesh State Govt.; cotton spinning. \$700,000.

Italy, Milan — Acciaierie Crucible Vanzetti S.p.A.; high-speed tools, stainless steel (bar form) & cast products. \$5 million.

West Indies Fed., Jamaica, Kingston — Minnesota Export Co. Ltd.; dress shirts & pajamas. Under constr. 27,700 sq. ft. (C).

Pakistan, Karachi — Govt., & U.N. Food & Agric. Org. & UNICEF; milk processing. Constr. date — May 1961. \$1 million.

Scotland — Rootes Motors Ltd., Lord Rootes, Chm.; autos. Oper. date — 1962. full oper. — 1963. \$52 million.

PROGRESS is the pattern in Southern New Jersey

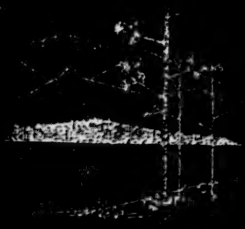


Atlantic City Electric Company predicts the population of Southern New Jersey will increase from 590,000 to 710,000 for 1965... 40,000 new homes will be built... the company plans to supply nearly 2½ billion kilowatt hours annually in 1965... \$143 million will be spent for new facilities in the next 5 years.

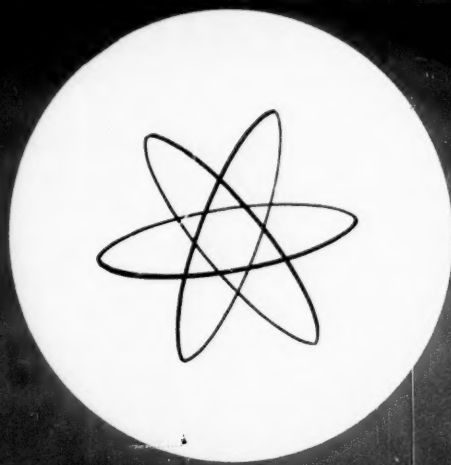
Write or phone our Manager of Area Development for complete, confidential studies — no cost, no obligation. Ask for free Map Brochure.

ATLANTIC CITY ELECTRIC COMPANY

AREA DEVELOPMENT, DEPT. D-1
1600 Pacific Ave., Atlantic City, N. J.
Phone: AT 5-4191



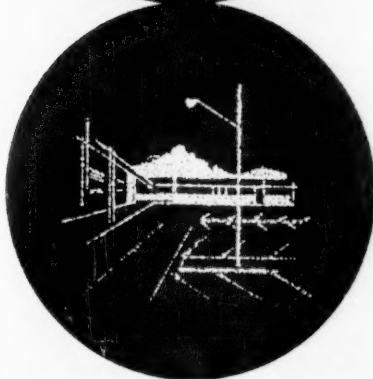
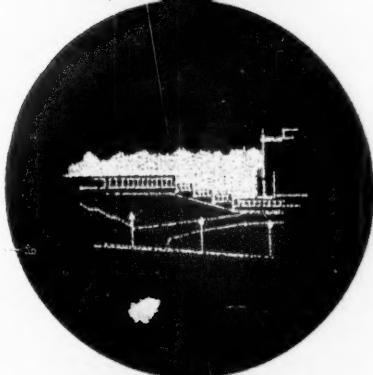
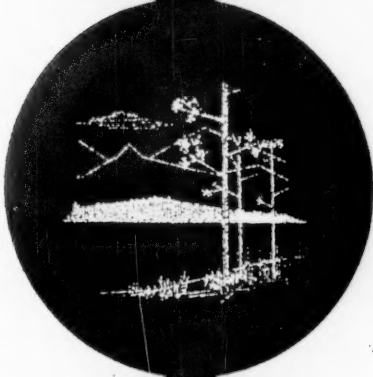
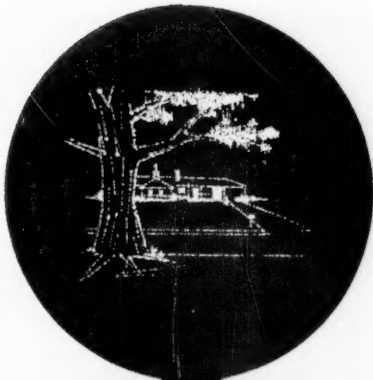
OAK RIDGE



The older world of Oak Ridge today may perhaps
be forgotten, but the new-born city is now a com-
munity of science and industry, and is equipped with the
resources and facilities to foster long-range in-

A CITY OF UNIQUE OPPORTUNITY FOR SCIENTIFIC AND RESEARCH ENTERPRISE

If you are looking for a pleasant-to-live-in community, strategically close to the expanding Southeastern market as well as to the big population centers of the industrial North and East, the City of Oak Ridge deserves your attention. Its various plus factors in the cultural, educational and recreational fields are backed up by the unique scientific and research resources provided by the huge Atomic Energy Commission installations here.



OAK RIDGE. This is one place where, to make an understatement, there have been some changes made.

A war-born community, which nurtured in its early years the most fearful military secret of all time, Oak Ridge is today a friendly, attractive city with arms outstretched to welcome visitors, new residents, and new industry.

To be sure, the huge plant complex of the U.S. Atomic Energy Commission's Oak Ridge National Laboratory and other AEC plants are still very much in evidence, and other restricted areas exist here and there in the adjacent Tennessee hills. However, the community itself, as well as most of the surrounding countryside, is wholeheartedly open for continued growth and development.

That fact was repeatedly impressed upon us in our conversations with leaders representing all facets of the city's economy. It was further substantiated when, during our drives around the community, we saw extensive new housing developments under construction and saw also how the housing and buildings which were erected during the war rush have been, and are still being, remodeled and improved.

There are also beautiful new shopping centers completed, under construction and planned, and significant moves have been made toward establishment of an extensive industrial park.

All this has come about since Uncle Sam, the original proprietor of all the land and buildings, sold the property not directly concerned with AEC operations to the citizenry, making Oak Ridge a full-fledged free enterprise city. Commercial and private airplanes can now fly over the area, too, restrictions against that having been just recently removed.

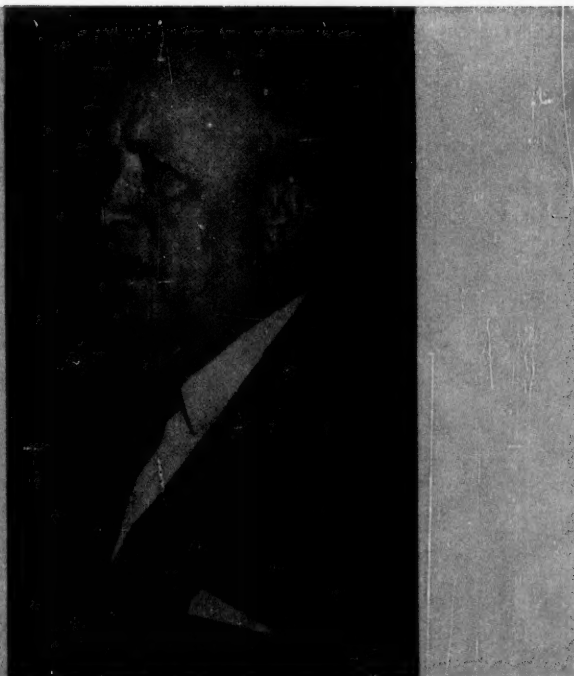
Room for Expansion

Concerning the room for growth here, Manager Chris Powers of Admiral Realty Company told us, succinctly: "There is land in abundance here for industrial development." He stressed, too, that zoning ordinances have been designed and set up to provide proper restrictions to protect both industry and the community.

"As a place to live," he added, "this whole area is wonderful. The year-around climate is excellent, we have a healthy and wholesome atmosphere in which to raise children, recreational facilities second to none, and fine cultural activities including such things as the theater, music and fine arts." Explaining how much he likes Oak Ridge, Mr.

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Oak Ridge's enthusiastic Mayor A. K. Bissell is devoting a great deal of his time and energy in efforts to push the city's industrial growth. His comment is that the community "really means business" in its development efforts, and he feels that Oak Ridge is "a natural" to attract enterprises in the research field.



Powers declared, "I came here to stay two weeks and six years later I'm still here."

After our visit with Mr. Powers we dropped in for a chat with Harry Delozier, executive vice president of the Bank of Oak Ridge. He allowed that, "The potential for new commercial and industrial enterprises here is great. We have a good business climate and high calibre workers available in the area, particularly women who are quick to learn hand work operations."

A state chartered institution, the Bank of Oak Ridge is a local enterprise which has been in operation since 1953. Its total resources as of June 30, 1960, amounted to almost \$8 million.

Currently, Mr. Delozier commented, the bank is handling principally real estate loans in the housing field, as well as consumer loans. But, he added, the bank is "very receptive" to the idea of helping in the financing of new industrial projects.

Other banking facilities here include two branches of the Hamilton National Bank of Knoxville.

Both the Hamilton National and the Bank of Oak Ridge have several big correspondent banks.

The optimistic views of Mr. Powers and Mr. Delozier were reiterated by Oak Ridge Mayor A. K. Bissell who works for the Union Carbide Nuclear Corporation.

In an interview, the mayor declared: "We really mean business on pushing industrial development in Oak Ridge, and with all the advantages here I think we have excellent chances for significant growth."

"With the AEC operations already here," he continued, "our community is a natural to attract various types of research laboratories and other related scientific organizations. The name Oak Ridge alone, because of its background, is attractive to research people."

A native of the East Tennessee area, Mayor Bissell has been a resident of Oak Ridge for 18 years and considers this to be as fine a place as can be found in which to live and work. "When it comes to recreation," he added, "whether you like hunting, fishing, boating, golfing, tennis, or all of these and more, you can find it in this area."

Existing Plants Do Well

To see first hand an example of how existing private enterprise manufacturing plants are faring here, we made a visit to the Oak Ridge installation of Abbott Laboratories. It produces, fittingly, radioactive pharmaceuticals.

Paul Mannin, customer relations manager for the plant, explained to us that the primary, and obvious, location factor for the plant here was the presence of ORNL from which Abbott gets certain



An important private enterprise plant operating in Oak Ridge is the facility of Abbott Laboratories which produces radioactive pharmaceuticals. Shown looking at a "hot cell" in the plant, which is processing I-131 and where a remotely controlled hand is operating.

are (left to right) Dr. E. J. Matson, manager of the Radiopharmaceutical Division; G. I. Gleason, nuclear scientist of the Oak Ridge Division of the company, and Herbert S. Wilkinson, vice president of Abbott Laboratories, North Chicago.

materials for the particular pharmaceuticals made here.

In addition to that, however, he emphasized, "Oak Ridge has all that one could ask in the way of amenities for pleasant living and for the convenient and efficient operation of an industrial plant."

He pointed out that the products of the installation, being small, are shipped to market by air express to points not only in the United States but all over the world. "The Knoxville airport is close by," he noted, "and we get excellent service from there through both direct flights and connections."

The Abbott facility currently employs 40 persons, including top research and organic chemists, all of whom were recruited right here, Mr. Mannin said. "Before moving to Oak Ridge," he observed, "I lived in many parts of the country, and I can honestly say that I've never liked a place more than this."

Also here are examples of budding new enterprise which show promise of rapid growth in the future. Outstanding among these is Oak Ridge Technical Enterprises Corporation. This is described as "a unique association of scientists, engi-

neers and businessmen." Among its 25 founders are 15 Ph.D.'s, four M.A.'s and six B.S.'s in various fields of specialization.

President Hal Schmidt of Ortec, a scientist with the ORNL, told us that the new organization—three months old as of this writing—manufactures "solid state radiation detectors for highly specialized applications." These detectors, he said, are very small, about the size of a half dollar.

Mr. Schmidt said further that Ortec is doing research in many fields and expects to produce other equipment of a highly technical nature. The company also provides various services and acts as consultants on technical matters.

"With the vast scientific and professional experience we have in Ortec," he asserted, "we feel that we have remarkably good chances for continued rapid growth and development."

Another new facility we saw here was the operation of Chemical Separation Corporation. It makes special equipment, using an ionization principal, for separating chemicals from water. An example is the device, which the company made on special order, for the removal of an excessive amount of fluoride in drinking water.

Irwin Higgins, president of the company and a

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former AEC researcher, said that special water treatment equipment produced here had been shipped to such distant points as Japan and France.

"We are doing continuous research and development in this field," he added, "and feel sure our market will continue to expand."

The principal industry here continues to be, of course, the Oak Ridge National Laboratory, the K-25 Gaseous Diffusion Plant, and Y-12, the chemical and metallurgical processing plant, which are operated for the Atomic Energy Commission by Union Carbide Corporation.

ORNL has been aptly named the "nuclear research center of the world," for it is the nation's principal source of the great range of atomic servants which can do such things as aid business in finding raw materials, producing new products, and in turning out present products with greater speed and economy.

As a consequence companies setting up operations here can have a neighboring fellowship with

the scientists who are opening new doors in medicine, agriculture, biology, and industry, through the "magic" of the radioactive isotope.

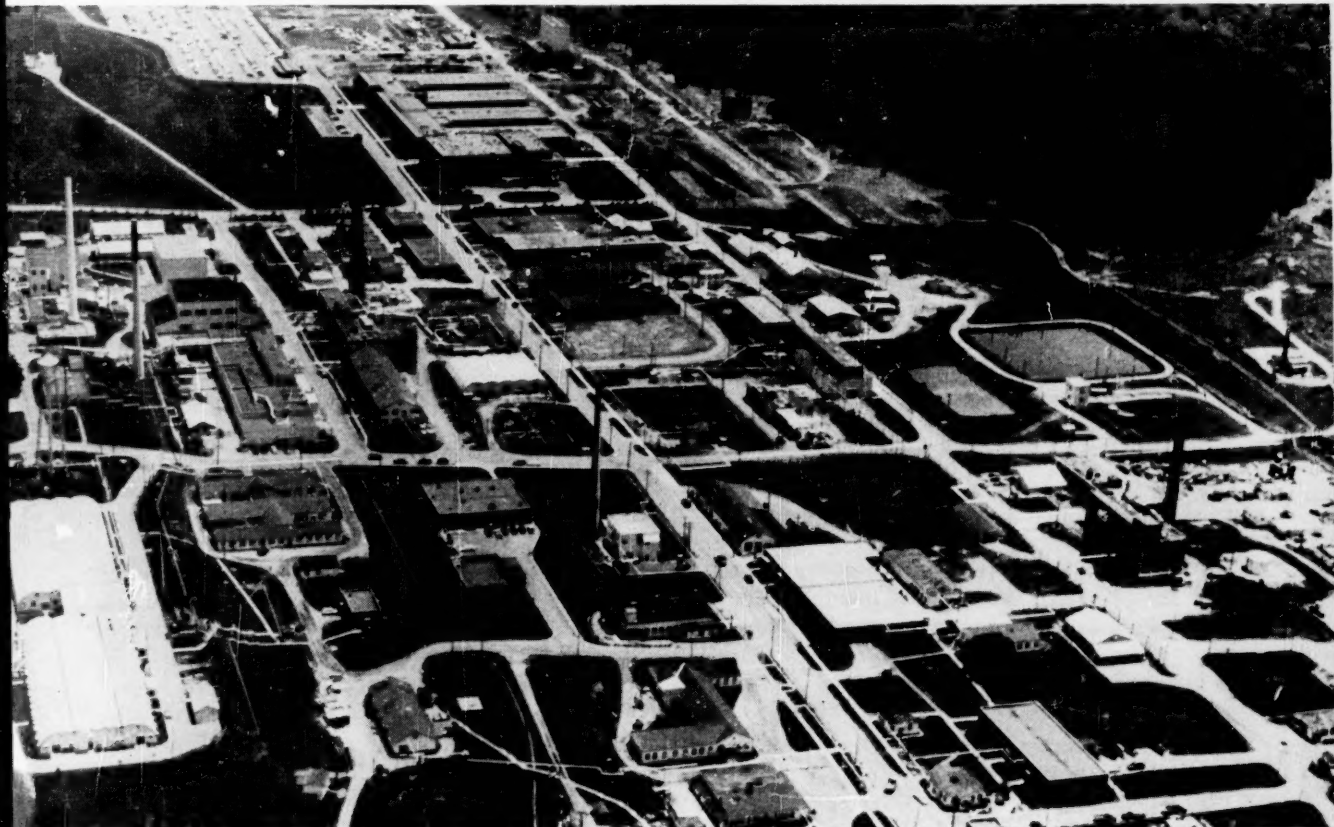
Here are just a few of the great number of ways that these isotopes are being utilized:

In medicine, they aid in diagnosis, in treatment of disease and radiation therapy. In agriculture they do such things as trace fertilizer action, help in plant growth studies and aid in cattle feeding experiments. An important use in industry is to gauge thickness of sheet steel, trace leaks in pipes, control the amount of rubber in tire cords, find flaws in metal parts, separate gasoline from oil in pipelines, and so on.

The AEC believes that the possibilities for continued expansions in the number of useful applications for isotopes are virtually unlimited.

Key Markets Close By

Take a look at a map of the eastern half of the nation, and you will note that Oak Ridge is slightly



The Oak Ridge National Laboratory is the Atomic Energy Commission's largest research center and is engaged in virtually every aspect of nuclear energy research. The laboratory is devoting much of its effort to the development of nuclear reactors which will produce

economical power. The ORNL also is the nation's principal supplier of radioisotopes. It and the Oak Ridge Gaseous Diffusion Plant and Y-12 plants are operated for the AEC by Union Carbide Corporation.

west of Knoxville in eastern Tennessee and is almost equidistant between Toledo and Cleveland on Lake Erie to the north and the Gulf of Mexico to the South. It is thus strategically centered in the huge market area comprising a major part of the United States east of the Mississippi River.

Within Oak Ridge is a population of close to 28,000, while in the immediate market area, comprised of Knox, Anderson and Blount counties, is a population totaling 364,665.

Blue Book of Southern Progress figures show that in 1959 the income of the three-county area, of which Knoxville is the core city, totaled \$793 million, and the per capita income was \$2,132. The Blue Book figures showed further that expenditures in the area last year totaled \$647 million, or \$1,739 per capita.

Total business volume—the cumulative value of all transactions—amounted to \$2.667 billion in 1959, while the volume of manufacturing activity alone

in the three counties was \$800 million during the year.

You may see, then, that Oak Ridge is part and parcel of a prosperous area which is constantly growing in importance as a place in which to sell an increasing amount of goods and services. Actually, there are opportunities for development of additional service industries just to serve the population within the city limits of Oak Ridge.

An Efficient Transportation Network

In driving around in Oak Ridge we noticed particularly the excellence of the streets, all hard surfaced and wide, and parking spaces are virtually unlimited. There are no parking meters here, either.

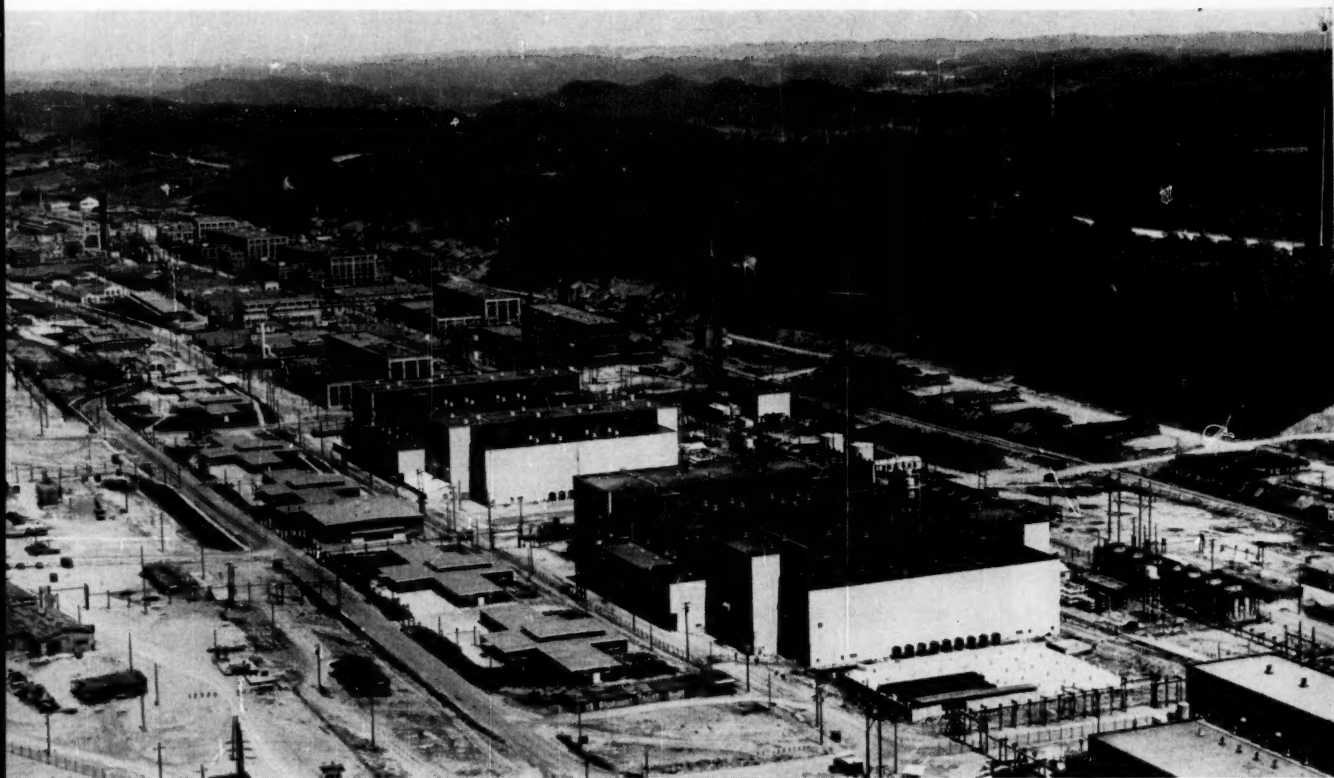
The main artery through the city, called Oak Ridge Turnpike, is a four-lane, paved trafficway, providing easy access to all parts of the community. While no federal highway comes into Oak Ridge, State Highways 95 and 61 serve the city



Air transportation, available less than an hour away at the Knoxville Airport is used extensively by Oak Ridge business and industry. Here a shipment of radio-pharmaceuticals from the Abbott Labora-

tories in Oak Ridge is loaded aboard a Delta Air Lines plane for shipment to a distant point.

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directly and connect with major highways going in all directions.

Oak Ridge also is close to three highways in the new Federal Interstate System, as Highways 70, 40 and 81 in this system go through Knoxville.

Direct railway freight service is provided here by the Louisville & Nashville Railway.

The airlines serving Knoxville, which is less than an hour away from here, offer around-the-clock schedules for passengers as well as air express and air freight. Trunk lines serving Knoxville are American, Capital and Delta, while the feeder lines are Piedmont and Southern.

Water transportation also is available here, as the Clinch River which flows through the southeastern edge of the city is navigable for 19 miles above the Watts Bar reservoir, linking the Oak Ridge area with the inland waterway network extending from the Great Lakes to the Gulf. When the Milton Hill Dam is completed, there will be a nine-foot navigable channel serving Oak Ridge directly. Plans also have been set up for industrial sites on the lake which will be formed, and the county has zoned the affected property for industry.

Greyhound, Trailways and Tennessee Coach offer bus service directly to Oak Ridge, and approximately 25 regular route common carrier truck lines have terminals in Knoxville.

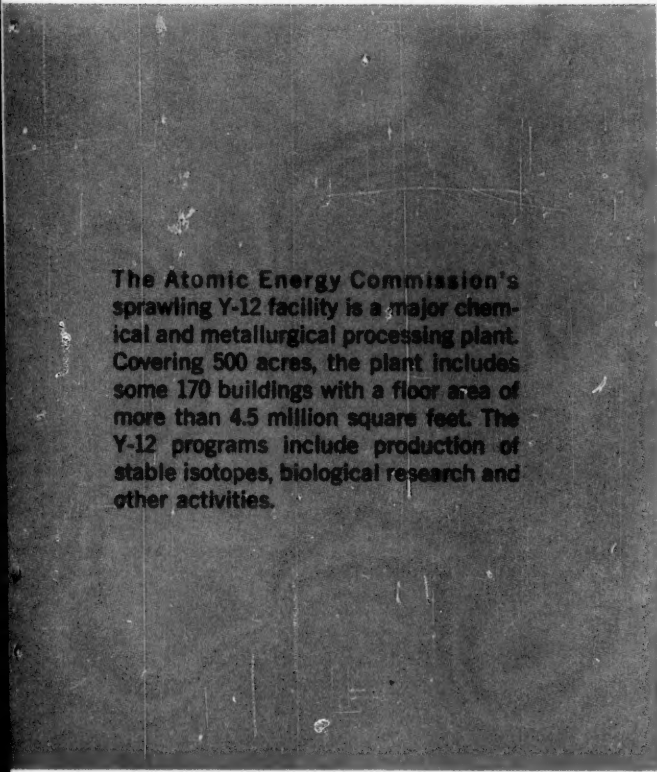
Progress also is being made on establishment here of an airport to handle private flying and executive aircraft.

17,500 in the Work Force

According to figures compiled by Thomas J. Adkins, Jr., executive director of the Oak Ridge Chamber of Commerce, there are approximately 17,500 persons in the community's labor force.

Of that total, about 15,500 are in manufacturing and construction, most of these being employed by the Carbide, and the remainder are in other occupations. Oak Ridge draws workers from a three-county area, or even farther, and it is estimated that the available labor supply in that area is around 12,000.

The work force is being constantly supplemented, of course, by youngsters finishing school. It is an interesting fact, too, that the community is what Publisher Don McKay of *The Oak Ridger* describes as "a city of young people," with a fourth of the population still in school.



The Atomic Energy Commission's sprawling Y-12 facility is a major chemical and metallurgical processing plant. Covering 500 acres, the plant includes some 170 buildings with a floor area of more than 4.5 million square feet. The Y-12 programs include production of stable isotopes, biological research and other activities.

However, even more important, because of the AEC installations Oak Ridge has a concentration of scientific and technical personnel which is most unusual, particularly for a city of this size. And, like the group which formed Ortec, many of these men can contribute of their knowledge and experience to other industry.

Another factor of interest to potential industry here is that the University of Tennessee at Knoxville graduates approximately 1,500 students each year, and many of these could be attracted to Oak Ridge when employment opportunities open up.

Wage rates here are considered to be generally competitive, a recent survey showing the average earnings in manufacturing to be \$2.25 an hour, and 40 hours is the average work week.

Tennessee has the so-called Right to Work labor law, and workmen's compensation requirements are standard. Women are not allowed to work more than 10 hours a day, and the state has child labor and voting time regulations.

A Unique Potential for Growth

Since Oak Ridge was started literally from "scratch," with a definite plan and purpose, and

was originally built by the Federal Government, it has some advantages which set it apart from other communities of comparable size or similar location.

For one thing, as City Manager Fred E. Weisbrod told us, all the basic utility facilities were built to handle a vastly larger population than Oak Ridge now has, and as a consequence this population could be more than doubled without the necessity of building additional facilities.

The City Manager, whose office is in the handsome new \$400,000 City Hall, pointed out, for example, that only 20 per cent of capacity of the water treatment plant is currently being used. The water for Oak Ridge comes from the Clinch River through a pumping facility with a daily capacity of 29 million gallons, and the water treatment plant can treat 24 million gallons daily.

"We have an excellent disposal system for sewerage, with two plants and big mains extending to all areas of the city," Mr. Weisbrod added, "and we certainly can meet any foreseeable demand from that standpoint."

Among other important facts about Oak Ridge's community services the City Manager enumerated were these:

The public works department has 100 employees, and there are 117 miles of streets and roads in the city. Oak Ridge also has \$1 million worth of modern road working equipment which it "inherited" from the Government.

The city has seven lighted ball parks, three recreational buildings for youths and adults, swimming pool, a number of tennis courts, as well as horseshoe courts.

There is a "total" health program, the annual per capita spending for health and welfare services being \$2.14. Facilities include medical and dental clinics, two well-staffed hospitals, and the Medical Division of the Oak Ridge Institute of Nuclear Studies operates a hospital for research on cancer and related diseases.

The police force has 28 men, civil service selected, all but four of whom have at least 10 years of experience here. Their pay is in the upper quartile bracket for Tennessee.

The Oak Ridge Fire Department has a continuous force of 24 men on and 24 off, all civil service employees, and the five fire stations here have the most modern mobile equipment. As a result of this efficiency, Oak Ridge can boast the lowest fire loss rate in its population group.

An interesting aspect of civil protection here is

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As part of its growth program as a city open for free enterprise, Oak Ridge has built this handsome new municipal building which cost

approximately \$400,000. It provides modern and efficient facilities for the administration of city affairs.

that the city has a full disaster control plan set up. There are 150 persons trained and ready to go into action whenever needed, with full mobile equipment.

The present tax rate in the city is described by Mr. Weisbrod as "medium" and in the second quartile rank in Tennessee. He also stressed that Oak Ridge is "debt free, and no general obligation debt is foreseen."

Concerning the operation of the city government, Mr. Weisbrod emphasized that it is "new, stable and has career personnel doing an honest and efficient job."

There are 12 councilmen, elected for four-year terms, and there are 250 city employees.

Plenty of Gas and Electricity

Natural gas here is distributed through the Oak Ridge Utility District, the manager of which is Tommy Thomason.

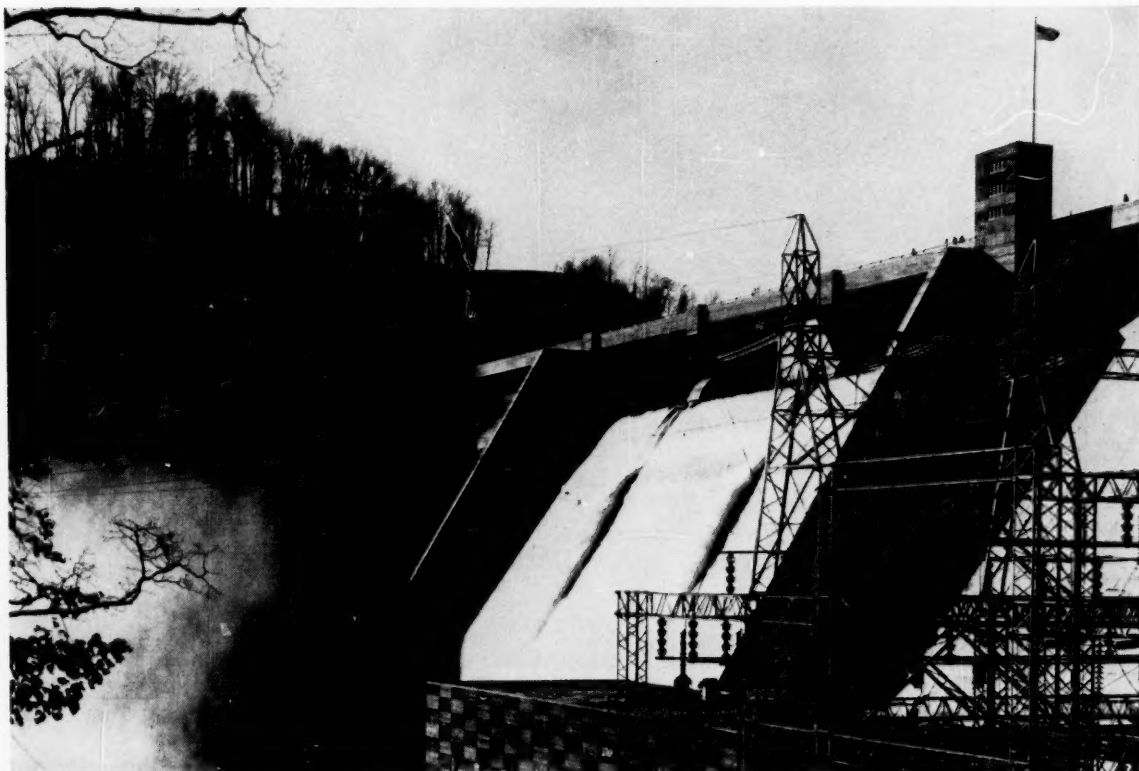
Mr. Thomason told us in an interview that the supply is "virtually unlimited." The rates on gas for heating purposes are on a par with other areas

of East Tennessee, he said, while bulk rates for industry are set by negotiation with the particular company concerned. The Utility District has a contract with East Tennessee Natural Gas Company for a stated daily supply of gas which can be increased on application.

"Our distribution facilities are good," Mr. Thomason said, "and if a new customer comes in and needs gas in bulk the District will handle the laying of pipe connections."

Besides talking about gas, the Utility District manager, who has resided here for 13 years, put in some good words about the city. "I've lived many places, but I really love it here. This is the best year around climate I've encountered, and you can't beat this area for recreational advantages."

On the electricity scene, Oak Ridge also is in an advantageous spot. The atomic plants here, for example, use more electricity than is consumed by all the rest of the state of Tennessee, and that means there always has to be plenty of power on tap.



Norris Dam, a part of the Tennessee Valley Authority System, provides not only a source of hydroelectric power but also a big lake which offers a variety of recreational facilities readily available to residents of the Oak Ridge area. Also within 20 miles of the city are

Fort Loudon Lake and Watts Bar Lake, and the new Melton Hill dam now under construction will open additional recreational opportunities close by.

The power for Oak Ridge comes from the Tennessee Valley Authority complex of plants and is distributed to consumers here at the basic TVA rate. The system is 13,000-volt, three-phase, and the city has a 21-man crew to maintain it. City Manager Weisbrod observed that, "There is plenty of electricity available here to meet foreseeable needs."

Oak Ridge is also close to vast bituminous coal fields in north and east Tennessee and Southeastern Kentucky. The reserves in these coal fields are still referred to as "unlimited," and because of proximity, coal can be shipped in and sold at costs comparing well with the nation's lowest.

Extensive Resources for Culture and Fun

In addition to the many basic community services enumerated by Mr. Weisbrod, Oak Ridge has cultural attractions unusual for a city its size and is close to one of the most popular recreational areas in the entire country.

The highly rated public library here has 45,000

volumes, and there are also 12 school libraries.

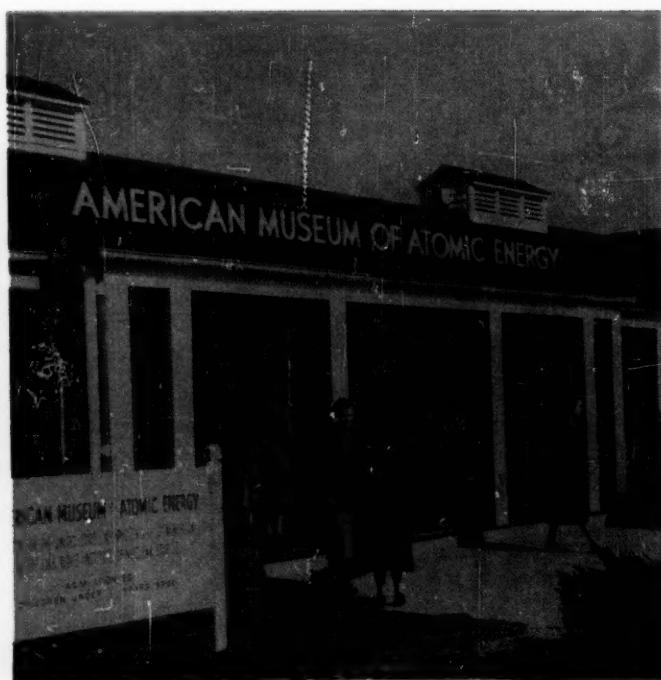
A symphony orchestra, and a community chorus are supported by the Oak Ridge Civic Music Association, while the Community Play House and Community Art Center offer entertainment and educational advantages.

For visitors a major attraction is the American Museum of Atomic Energy, the world's first permanent exhibit devoted to telling the story of the atomic age. It is free and open daily to the public.

Fishing, boating and swimming fun are available at Norris Lake, Fort Loudon Lake and Watts Bar Lake, all within 20 miles of the city. The new Melton Hill dam now under construction also will open up vast new recreational facilities close by.

Just a two-hour drive to the east is the Great Smoky Mountain National Park which is one of the most popular of the U.S. Parks. It offers facilities for camping, hiking and hunting, and the mountains are noted for their spectacular scenery.

Here in Oak Ridge is an 18-hole golf course, a



The American Museum of Atomic Energy, operated for the AEC by the Oak Ridge Institute of Nuclear Studies, is the world's first permanent exhibit devoted to telling the story of the atomic age. The institute also, among many other things, has traveling exhibits of various types that are shown throughout the country on established schedules.

country club, and a Sportsman's Club which has rifle, pistol, archery ranges and so on.

The Oak Ridger is the afternoon local daily paper, and Oak Ridge also has one radio station. Good television reception is received from stations in nearby cities.

Since its inception, Oak Ridge has had a strong religious background, and there are now 40 church groups serving fifteen denominations in the city. There are several new church buildings here of attractive and unusual architecture.

The climate here is generally mild the year around, the mean summer temperature being 75.6 degrees and the mean winter temperature 41.6 degrees.

To accommodate visitors to Oak Ridge the year around, the Alexander Hotel has 98 rooms, and the recently built Holiday Inns of America motel here has 105 rooms. There is also a smaller motel.

Oak Ridge has 10 first class restaurants, including excellent ones at the Alexander Hotel and the Holiday Inn.

A Highly Rated School System

Virtually all the people we talked with during our visit to Oak Ridge found occasion to make a complimentary remark about the public schools here, and in our chat with L. P. Cushman, super-

intendent of Oak Ridge Schools, we found that there was good reason for this.

Pointing to the high academic standards, Mr. Cushman said that 60 per cent of the high school graduates go on to college and are readily accepted by colleges and universities anywhere in the nation.

An interesting facet of the curriculum is that foreign languages are started in grade three and continue through grade 12. In grade three through six the emphasis is on speaking, while for the remainder of the time the grammar and spelling of the language also are taught.

A special aid to students is the testing program. These tests are followed through on each individual, and when any student fails to meet the standards he has established, then he is given special attention and help.

The school system has a guidance department and psychologist, and full time guidance counsel is provided at both the junior and senior high school levels.

The current teaching staff comes from 28 states, many of these teachers being wives of top personnel at the AEC installation, Mr. Cushman said.

Stress also is laid on vocational education, subjects available including electrical training, mechanics, woodworking, automobile mechanics, in-

dustrial arts, and so on.

Adult education programs are operated by the Oak Ridge School system and by the University of Tennessee which has extension classes here. Students can get resident credit all through to the Ph.D level. Mr. Cushman said further that the summer adult program includes eight-week courses in such things as library science, nursing, art, etc., and this past summer there were 1,000 students registered.

The superintendent said also, with visible pride, that the high school has "a very strong athletic program, and we have lost only five football games in the past five years."

He stressed, too, that with recent new construction the school buildings are adequate to handle a considerably larger enrollment. "Our schools are ready on all counts to take care of growth," he declared.

Concerning the city's present push for industrial expansion, Mr. Cushman said that many of the students who go on and get college degrees in various specialties, and who take jobs elsewhere, would be more than willing to return to Oak Ridge if sufficient employment opportunities were offered.

In addition to the regular Oak Ridge system schools, there are two special institutions operated here by the Anderson County Board of Education. These are the Daniel Arthur Cerebral Palsy Center and the Emory Valley School for Mentally Retarded.

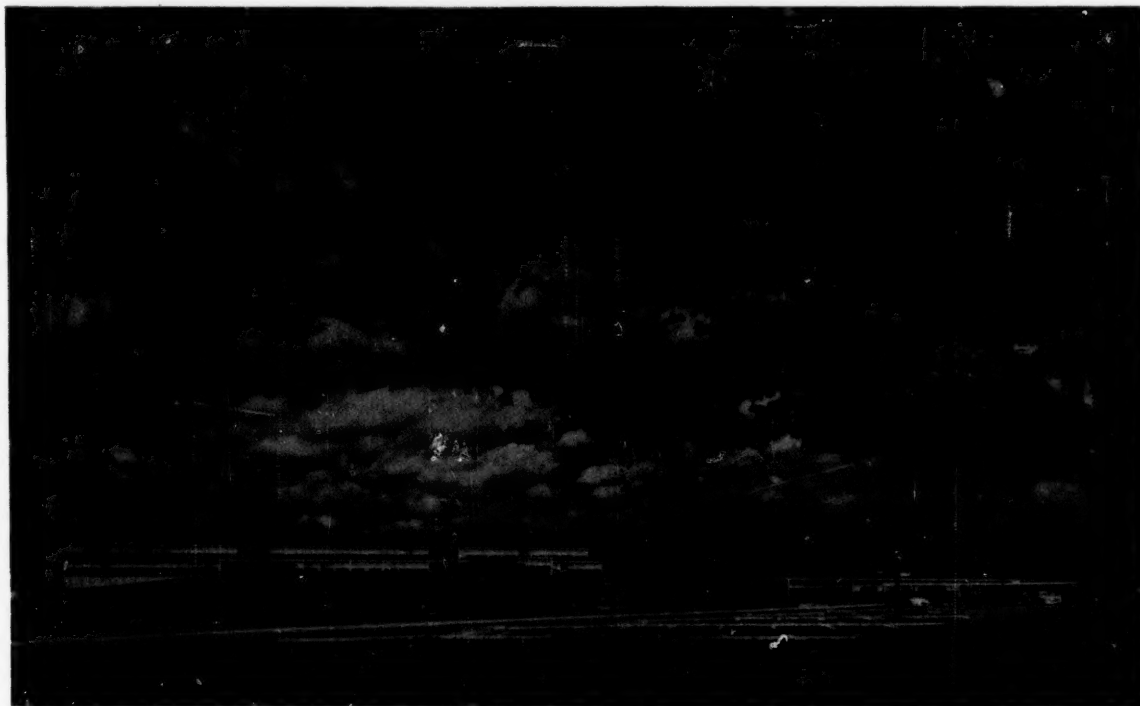
In Oak Ridge there is also a parochial school with an enrollment of approximately 450. Constructed in 1950, the school building is of modern design. The school has a strong curriculum and high achievement standards.

Close by and convenient to Oak Ridge are four institutions of higher learning. The University of Tennessee at Knoxville is a fully accredited university offering courses in all phases of higher education.

Another state supported school is Tennessee Polytechnic Institute at Cookeville. It offers courses in engineering and liberal arts, as well as teacher training.

Maryville College at Maryville is a private liberal arts unit supported by the Presbyterian Church and is an approved teacher training institution.

The fourth is Carson-Newman College at Jeffer-



Oak Ridge High School, a modern and functional building, was built at a cost of nearly \$3 million. It was among the principal projects undertaken since World War II in the transition of the city from a

temporary community to a permanent city. Superintendent Dr. L. P. Cushman observes that, "Our schools are ready on all counts to take care of growth."



The Special Training Division of the Oak Ridge Institute of Nuclear Studies provides instruction in the myriad uses of radioisotopes and radiation in industry. Here, two industrial representatives examine

autoradiograms of a metal fitting — pictures similar to X-ray photographs but using a radioactive isotope as a source of the penetrating rays to show possible flaws in the fitting not visible to the naked eye.

son City, a Baptist college which is also approved for teacher training.

Oak Ridge Institute of Nuclear Studies

Referred to previously in this report, the Oak Ridge Institute of Nuclear Studies constitutes another one of the unusual educational and scientific organizations here.

A nonprofit educational corporation, ORINS is supported by 38 southern universities. It is a major avenue through which these universities participate in and support the nation's atomic energy program.

Located in a handsome, recently-built administration building, the institute has a staff of several hundred persons operating under an executive director. The four main program divisions of ORINS are University Relations, Special Training, Museum and Medical.

The University Relations Division handles a series of programs, supported by the AEC, includ-

ing such things as research participation, graduate fellowships in various fields, traveling lecturers, symposia and conferences, and others.

The Special Training Division offers radioisotope techniques courses, and other special advanced courses. Several thousand students are enrolled, representing all the states and dozens of foreign countries.

Programs of the Medical Division include pre-clinical research, medical physics, clinical program and training of physicians in the use of radioisotopes.

Through the Museum Division, the Institute operates a major exhibits program for the AEC. Included is the American Museum of Atomic Energy here, and traveling exhibits of various types that are shown throughout the country on established schedules.

Altogether, the Institute and its multivarious activities make up one of Oak Ridge's strongest plus factors.



The Oak Ridge Hospital of the Methodist Church, Inc., is a part of the unusually good facilities that the city has for maintaining the

health of its citizens. In Oak Ridge's "total" health program the annual per capita spending for health and welfare is \$2.14.

Plans for An Industrial Park

One of the most dynamic young leaders we talked with here was Jack Gibbons who, by his own admission, "wears several hats."

Under one hat he is a scientist, under another he is a vice president of Ortec, and under a third he is vice president of the Oak Ridge Development Corporation.

He explained that the latter is a privately-owned and locally founded organization which has acquired a site of approximately 220 acres here for development into an industrial park. There is also a potential for expansion to a total of about 500 acres, he said.

"The site is served by the Louisville & Nashville Railroad and a highway," he added, "and gas, sewerage systems and city water are there. Plenty of power also is available."

The area already has been fully zoned for industry, covering all types of enterprise that would

be likely to locate there.

Mr. Gibbons said further that the corporation presently has "some money for aiding in location of a plant here and can also make necessary financing arrangements. We will build for a prospective tenant on a lease or buy basis."

As did many of the other persons with whom we chatted, Mr. Gibbons laid stress on "the vast talent" that is available here, and said the technical libraries maintained in Oak Ridge "are second to none anywhere." He emphasized, too, that there are good openings here for various types of service industries.

In addition to the planned industrial park there are a number of parcels of land in various parts of the city that are available for industrial or commercial development.

The Oak Ridge Chamber of Commerce has compiled a list of 20 such parcels, varying in size from fractions of an acre up to as much as 160 acres.



Among the Oak Ridge leaders ready to extend a hearty welcome and to help you in plant location activities are (left to right) Fred E. Weisbrod, city manager; W. J. Hatfield, president of the Oak Ridge Chamber of Commerce; Tommy Adkins, executive director of the Chamber, and C. C. (Red) Williams, first vice president of the Chamber.

Most of these sites have necessary services available.

The Industrial Development Team

Although we had already been impressed at the cross section of leaders deeply interested in Oak Ridge's industrial future, we were still a bit surprised to learn that the chairman of the Chamber's Industrial Committee is a physician.

However, in our interview with Dr. Lewis F. Preston, a pediatrician, we quickly discovered that his talents were many, and he has a keen knowledge of business and the potential for development which exists here.

"A particularly fortunate aspect of Oak Ridge," he asserted, "is that we are a young city, with no slums. We started with a clean slate and have a new city government which is both capable and enterprising."

Dr. Preston said that he first came to Oak Ridge in 1943 when he was in the Army, and following the war and separation from the service he decided to locate here permanently. "I have invested in a clinic here," he pointed out, "and I have complete faith that Oak Ridge will continue to grow and prosper on all counts."

Dr. Preston also called attention to "the high level of intellect here" as well as to the broad

cultural and recreational advantages.

"It is obvious," he added, "that there are wonderful opportunities for development here for new industries in the nuclear, scientific and research fields, as well as many others, and I see no reason here for anything but good progress."

In addition to Dr. Preston, leaders working on industrial development with Chamber Manager Tom Adkins include Jack Gibbons, Chris Powers, James H. Moore, Red Williams, T. D. Clines and others.

Mayor Bissell also told us in the course of our visit with him that he has definite plans to employ a full-time industrial development expert for the city and is currently looking for the right man for the job.

In summary, it may be reiterated that few places anywhere can offer the unusual combination of extensive research facilities provided by the AEC installations, the University of Tennessee, and ORINS.

It may be said, too, that the entire progressive citizenry of Oak Ridge constitutes a sort of development team which is solidly behind the city's plans for growth. Therefore, as we observed at the beginning of this report, should you go to Oak Ridge as a sight-seer, a prospective resident or with a possible plant up your sleeve, you will find a most cordial and helpful reception.

I.D. AREA SERIES

This study on the opportunities for growth in Oak Ridge was made by the staff of **INDUSTRIAL DEVELOPMENT** under the auspices of the Oak Ridge Chamber of Commerce. Reprints of the report may be obtained without charge from Thomas J. Adkins, Jr., executive director of the Chamber, Oak Ridge, Tennessee and from the office of Mayor A. K. Bissell.

An expert in economics presents here a detailed study of the factors considered by specific industries, of various sizes, in selecting a plant site in developed or underdeveloped parts of a particular state.

UNDERDEVELOPED AREAS OFFER PLANT LOCATION ADVANTAGES

By Melvin L. Greenhut

Examination of the location factors which have played a role in causing different industries to locate in an area can provide a rather full picture about location forces in general for the several industry types operating in the region under examination.

This paper examines one small phase of the whole complex matter of general industrial development economic research, namely, the analyzing of data acquired through a general location study.

We use, for statistical reference points, the data that were obtained in a study of the location factors which attracted new plants to Florida in 1956 and 1957.

It was found that the food and kindred products industry (SIC 20), the lumber and wood products industry (SIC 24), and the chemical industry (SIC 28) located most willingly in what are designated by the Florida Development Commission as the "underdeveloped" counties in Florida. In contrast, the publishing and printing industry (SIC 27), the fabricated metal products industry (SIC 34), and the electrical machinery industry (SIC 36) clearly preferred a location in the developed counties.

ECONOMIST GREENHUT

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The industries cited above which proved most willing to locate in underdeveloped counties preferred this kind of location only relatively rather than absolutely, and then in some cases only for certain sizes of plants. But first note that considering all industries, and taking those firms with less than 25 em-

ployees, we find a preference rate for developed counties slightly greater than 7-1, while for firms of all sizes the ratio was less than 6-1, having been especially low in the 25-99 and 100-499 employee category. (See Table 1.) In related manner, the less than 25 employee firms in the food and kindred

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products industry preferred developed counties at a ratio of 11-1, with, however, the relative preference for location in developed counties changing as larger establishments are considered, so that it falls to slightly more than 3-1 as all firms in the industry are considered.¹ (See Table 1 for ratios and Table 2 for numerical details.)

Similar figures prevail in lumber and wood products. There the firms in the less-than-25 employees classification preferred the developed counties at approximately a 2-1 figure. Underdeveloped and developed counties were selected on an equal basis by firms in the 25-99 employee group. And because companies in this industry were all below the 100 employee classification, our total ratio figure reflects such small scale plants and leaves a relative preference for developed counties over underdeveloped counties at about a 1½-1 figure.

The chemical industry shows comparable results. Among small sized plants (0-24 employees), developed counties were preferred by a ratio of 2-1. Where 25-99 employees were hired, the preference rate was 2-3; that is, underdeveloped counties were actually preferred. For firms with more than 100 employees, the underdeveloped counties again were preferred with the preference for developed to underdeveloped being 0 to 4.

Significant contrast is shown by the industry groups which most preferred location in developed counties. Among these, the electrical machinery companies with less than 25 employees preferred the developed counties at a 20-D figure. Among the 25-99 employee plants in this industry, the preference amounted to 2-0, while an 8-2 absolute preference or 4-1 ratio prevailed for plants having more than 100 and less than 500 employees. Above this employee total, the

preference was 2-0. The overall total showed 32-2 firms preferring developed counties or a 16-1 ratio in the industry.

All new firms in Florida in the printing industry had less than 25 employees. Total figures for the industry are therefore equal to the small plant industry figures. The preference rate was 30-1.

Firms in the fabricated metal products industry employing less than 25 workers preferred the developed counties at an 80-6 figure or a rate approximating 13-1. Among firms with employees between 25 and 99, the preference figure was 12-0; and similarly 6 to 0 for establishments with between 100 and 499 employees which formed the largest size firms in this industrial group. The preference rate, in total, ran more than 16-1 for location in developed counties in this industry.

We may generalize from these figures, albeit with some caution, the following ideas. Underdeveloped counties have greatest natural chance of attracting plants in the food and kindred products industry, in the lumber and wood products industry and in the chemicals industry. Because plants with less than 25 employees do not represent a significant gain for a county.

It is in the chemical industry that fairly large plants (100-499 employees) appear to have strongest preference for location in undeveloped counties; at least this is true on the basis of the Florida study.

Location Factor Differences Among Industries

The firms comprising the food and kindred products industry and preferring location in developed counties differed substantially in their location factor selection from those firms locating in underdeveloped counties. Size of plant, as shown in Table 3, made no difference at all in this respect. Thirty-eight companies of the fifty-two locating in developed counties selected the demand factors (access to markets or anticipation of growth of markets) as the main determinant. Five were influenced by climate, seven by low freight cost on raw materials and one each by low mill price on raw materials and availability of raw materials. Approximately three out of four in this in-

dustry preferring location in developed counties were highly influenced by market factors. In contrast, twelve out of fourteen locating in underdeveloped counties did so to gain low freight cost on raw materials. Where raw materials are more expensive to transport than finished products, location near a source of materials enables a firm to cut its costs and to sell in markets at more favorable prices than will firms that fail to gain this advantage.

On taking a closer look we might note that the meat packing plants (3-0), the sea food canneries (2-0), and the fruit canneries (2-0) were ready locators in underdeveloped counties. On the other hand, the companies in the food and kindred products industry which located predominantly in the developed counties were those engaged in the malt liquor and other beverages group (13 companies to 0) and prepared feeds (20-1).

Each of the meat packers claimed that low freight costs on obtaining raw materials governed its particular location decision. Those packaging sea foods were also primarily concerned with the same consideration as were the fruit canneries.

The malt liquor beverage group was similarly unanimous in selecting their dominant factor. However, with this group, access to markets governed the site selection. Apparently by selecting developed counties for location, the profit-making ability of this kind of concern is enhanced. In similar step, the prepared feeds group appeared equally concerned with market potential, and on a near unanimous basis selected this factor as the dominant force behind its locations. Lone dissent comes from the one member of this industry that located in an underdeveloped county. We see in this case that low freight cost on raw material was dominating.

Let us draw the following conservative conclusions from these observations. Canneries and other packagers of foods (including meat, sea food, and fruits) tend to locate near raw materials, and are not concerned with the stage of county development, being in fact very willing to locate in underdeveloped places. Breweries and prepared foods manufacturers, on the other

¹ Incidentally, one finds throughout the statistics presented here (except for the largest size plants, i.e., 500 employees), a surprisingly greater willingness among the larger employee establishments to locate in underdeveloped counties. While readers may have anticipated a preference among the "bigger plants" for location where large numbers of people live and hence where many workers are available, apparently the relatively large size establishment believes that it can tap a "labor market" in underdeveloped counties to greater advantage and have little difficulty in inducing workers to commute the necessary distances.

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hand, concentrate heavily on developed counties, though millers of grain other than feeds move readily to underdeveloped counties. Fruit processors were found in either type of county; their major interest in minimizing freight cost on raw materials and hence in locating wherever the materials are found is not surprising.

The lumber and wood products (except furniture) industry followed similar contrasts. Thirty of the companies preferring developed county locations selected such places for the purpose of being near the market. Ten wanted low freight cost on the final product and five sought low freight cost on raw materials. In ratio form, the preference was 2-1 for the demand (i.e., market) factor among the firms in developed counties. On the other hand, seventeen of the lumber and wood product enterprises locating in underdeveloped counties sought low freight cost on raw materials. Five wanted access to markets, four sought low freight cost on the final product and one wanted to gain a ready supply of raw materials. The preference rate among these firms was little less than 2-1 for the saving of cost on shipping raw materials over all other main considerations.

Table 3 shows that the size of firm was not important in terms of factors in the lumber and wood products industry.

On specific levels of analysis, certain clear-cut relationships appear. Nineteen logging camps located in underdeveloped counties and only five in developed counties. Two of the companies locating in underdeveloped counties claimed that access to markets brought them to Florida, three were most concerned with low freight cost on their finished product and significantly confined their product sales to Florida. The fourteen others and all those locating in developed counties sought to minimize freight costs on raw materials. The sawmill and planing mill group (three in number) all located in underdeveloped counties, while oppositely the mill-work group including prefabricated wooden structures such as buildings, sections, and panels confined their locations to developed counties.

Table 1

Approximate Preference Ratios Among Surveyed Plants for Developed County Locations Compared to Underdeveloped Counties in Selected Industries and in Total 1956-57

	0-24 Employees	25-99 Employees	100-499 Employees	500 Employees and over	All Employee Groups
Food & Kindred Products	11-1	1-7	1-1	1-0	3½-1
Lumber & Wood Products	2-1	1-1	0-0	0-0	1½-1
Chemicals	2-1	2-3	0-4	1-0	1-1
Electrical Machinery	20-0	2-0	4-1	2-0	16-1
Printing	30-1	0-0	0-0	0-0	30-1
Fabricated Metal Products	13-1	12-0	6-0	0-0	16-1
All Industries	7-1	3-1	3-1	8-1	6-1

Table 2

Location of Surveyed Plants by Size, County and Industry, 1956-57
Industry Group

County Type	Plant Size	Food & Kindred Prod. SIC 20	Lumber & Wood Prod. SIC 24	Chemicals SIC 28	Electrical Machinery SIC 36	Printing SIC 27	Fab. Metal Products SIC 34	All Firms
Dev.	0-24	47	40	10	20	60	80	525
	25-99	1	5	2	2	0	12	69
	100-499	3	0	0	8	0	6	40
	500-Over	1	0	1	2	0	0	8
	Sub Total	52	45	13	32	60	98	692
Undev.	0-24	4	22	5	0	2	6	70
	25-99	7	5	3	0	0	0	26
	100-499	3	0	4	2	0	0	13
	500-Over	0	0	0	0	0	0	1
	Sub Total	14	27	12	2	2	6	110
Total		66	72	25	34	62	104	752

Table 3

First Locational Factor Selected by Specified Industries by Plant Size and County Type
(Dev = developed; UD = undeveloped)

Factors	0-24		25-99		100-499		500-Over		Totals Factors
	Dev	UD	Dev	UD	Dev	UD	Dev	UD	
FOOD AND KINDRED PRODUCTS									
Access to Markets	27	1	1						29
Anticipation of growth of market	10								10
Low sellers mill price on raw mat.		1			1				2
Low freight cost to obtain raw mat.	5	2		7	1	3	1		19
Availability of raw mat.									
Climate as attraction to top management	5				1				6
LUMBER AND WOOD PRODUCTS EXCEPT FURNITURE									
Access to Markets	15	4	5	1					25
Anticipation of growth of market	10								10
Low freight cost to obtain raw mat.	5	13		4					22
Availability of raw mat.		1							1
Low freight cost on shipping final prod.	10	4							14
CHEMICALS AND ALLIED PRODUCTS									
Access to Markets	5	2	1						8
Anticipation of growth of market		1							1
Ease of attracting out- of-state skilled labor			1						1
Low freight cost to obtain raw mat.		1		2		2	1		6
Availability of raw mat.				1		1			2
Low freight cost on shipping final prod.	5	1				1			7

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Loggers, planing mills and sawmills locate where forests exist and generally these are found in underdeveloped areas. The business organizations in this category are generally small in size and seek to minimize the freight costs on raw materials. Their mills fabricate either rough, round, hewn or river primary forest or wood raw materials and they locate these mills or their sawing and planing operations as near to the center of the raw material supply as is possible.

On the more advanced stages of production, such as millwork and prefabricated processing, a clear trend exists to locate in developed counties. The lure of markets strongly influenced the location of millworks in Florida while low freight costs on final products tended to dominate the location of prefabricated wooden construction establishments. The miscellaneous wood products group (including such items as particle board, cork products, mirror and picture frames) is primarily located in the developed counties of Florida.

General Procedures

The chemical and allied products group is behaving in like pattern, as far as the general location process is concerned. Among the thirteen firms in this industry selecting developed counties, six considered access to markets to be the most variable location factor and hence the one to be complied with in choosing the site for a plant. Five of the chemical firms were influenced primarily by the desire to minimize shipping costs on the final product. This particular consideration suggests that for these firms the industrial process involves the addition of weight, bulk, perishability, and/or value so that shipping the final product over shortest distances reduces costs. One of the chemical concerns wanted a location which would best attract out of state labor and the other sought lowest freight costs on raw materials.

In sharply different context, five of the chemical firms locating in underdeveloped counties wanted to minimize freight costs on the raw materials, two sought a ready supply of raw materials in selecting their location, two wanted to minimize freight costs on shipping the

final product, and three were market influenced. The ratio of preference was five to seven with respect to cutting raw material transport costs compared to all other determinants.

Examination of particular activity types in the chemical industry uncovers a pronounced tendency for the 10 companies engaged in the manufacture of detergents and cleaning preparations to locate in developed counties. For these companies, access to markets or low freight cost on the finished product is most important. Significantly, these companies are small in size tending to employ around 25 workers and less. Their markets are either local or southeastern U.S. but the prevailing market is in Florida. These industries, because their markets are primarily local in nature, tend to move into counties which provide them with these local markets.

Other activity types that selected developed counties include a firm manufacturing industrial gases, a producer of fertilizers, and a company manufacturing synthetic organic fibers. Each of these organizations was large in size, employing more than 100 workers. Respectively, they were influenced by the desire to attract skilled labor, by the market, and by low freight cost on raw materials. But each of these company types may also be found in the underdeveloped counties. There we find that in industrial gas company was concerned most with minimizing freight cost on the final product while the fertilizer and synthetics unit agreed with their developed county counterparts in selecting respectively the Florida agricultural market and low freight cost on raw materials as the prime location variable.

Chemical companies locating in underdeveloped counties ranged from a producer of agricultural pesticides to gum and wood chemical plants, to a paints and lacquer establishment, and to industrial organic chemical concerns. Availability of raw materials was primary to two of three gum and wood chemical concerns while low freight cost on raw materials was considered most important by the other firm. Also, the two organic chemical companies that located in underdeveloped counties in Florida were

most influenced by this factor of location. The experiences in Florida in recent years suggest that this industry is quite willing to locate in underdeveloped counties. Frequently the companies were large and only the small concerns appeared weighted in favor of developed counties.

Further Analysis of Survey Statistics: Supplementary Factors

Extension of the study to secondary and tertiary factors, if run chiefly in terms of the food and kindred products industry, the lumber and wood products industry, and the chemical industry, uncovers certain additional information which warrants mention. For example, the food and kindred products industry showed that adequate supply of low wage labor, low cost of capital, and favorable community facilities and attitudes were major considerations. In turn, the lumber and wood products men stressed the need for a steadily available supply of raw materials and labor as factors of major consideration in selecting their location, while the chemical industry locators were interested in ease of attracting out-of-state labor and are strongly concerned with waste disposal facilities and community attitudes and facilities in general.

Transportation Equipment Industries

In the transportation equipment industry 43 firms sought access to markets, existing or potential. Two of the companies (both in aircraft) sold over a national market with the Florida location serving to increase the demand for the product in the sense that a great part of the buying activity takes place in Florida as if the market were concentrated here. Twenty-six of the other firms sold only in Florida while an additional seven sold in the southeast with emphasis on Florida. All of these firms just mentioned located in developed counties.

There were eight firms in the industry which located in underdeveloped counties and which claimed the same access to market factor as being most important. Among these, five listed the southeast as their market area, while three sold only in Florida. One of the three was in aircraft and situated near an air

force base, one was a boatbuilding concern located on the Gulf at what could be called a center of boating activity, and the other, a trailer coach manufacturer, was rather centrally located in the state. Incidentally, five of the eight firms locating in underdeveloped counties and stressing the market factor were manufacturers of trailer coaches.

Fifteen concerns in this transportation equipment industry stressed factors other than markets. Eleven of this group located in developed counties and four in underdeveloped counties. Ease of attracting skilled labor was mentioned nine times in all, low wages two times, climate as it affects operations twice and also low cost on shipping the final product.

Special interest attaches to the four concerns which were attracted to underdeveloped areas. In this category, we find that two were in boat building and the others in aircraft. Low labor cost was, in general, their leading factor. By extending the list to include secondary and tertiary forces as well as factors which drew the company to its particular community, we find in a prominent position the importance of gaining a site where adequate supplies of labor exist and where community facilities are favorable.

One might conclude that the underdeveloped counties have a chance of attracting the manufacturers of transportation equipment when special conditions or resources exist which can be used as a means for demonstrating the equipment. Labor supply and cost factors appear vital to many concerns, but, most important of all, the heavy stress placed on the market factor suggests that though sales may even be national, a buying practice prevails in many parts of this industry which finds expression in the willingness of buyers to travel to the seller's plant for purposes of shopping around and then ordering their equipment.

Stone, clay, and glass industry is surprising in that availability of raw materials was significant as was the personal factor with economic advantage, i.e., where the individual through background in a community has established relations

which yield him an economic advantage. In fact, twelve in this group were influenced most in selecting their community location by personal contact advantages. Apparently if one is brought up in an environment that provides him with background experience and acquaintanceships in a business in the stone, clay, and glass field, he tends to stay at home in the same occupation. That thirty-nine firms were most influenced by the market factor and sold to buyers located only in Florida suggests that market areas are not extensive. Moreover, five of the thirty-nine market-influenced firms located in underdeveloped counties, and four of these five were engaged in manufacturing concrete products, with the other being engaged in fabricating brick and structural clay tile. All five were small.

The counterparts in developed counties were also small, except for a couple of market-influenced firms fabricating hydraulic cement and an asbestos products manufacturer. Among the six in the industry not dominated by the market factor, those in the underdeveloped counties (three in number) were fabricators of concrete products and were most concerned with transport costs while a large glass container manufacturer and floor tile fabricator were joined by a concrete products plant among the developed county firms that stressed a factor other than markets.

Small concrete products plants are likely to locate in principal cities of underdeveloped counties which are not close to large communities. Past or present residents who have had experience in this industry are most likely to start up new plants in stone, clay, and glass manufacture.

Market Influence

Only a few industries that concentrated in developed counties very conceivably could have been influenced to locate in underdeveloped counties. This judgment is drawn especially in light of the kind of factors which influenced their location decisions and the geographic extent of their market. Thus, among the firms and industries which located in developed counties which were not restrained by the market

factor to this kind of location, there prevailed a location factor type that consistently favored the developed county. For example, of the nine counties having the new Florida electrical machinery industry, which strives for sales to buyers located outside of Florida, three were most influenced by the availability of labor in Florida. Two of the nine were influenced by the ease of attracting out-of-state skilled labor. The others were influenced by considerations of similar kind that tend to be complied with best in developed counties.

A study of the apparel industry shows that out of fourteen companies catering to out-of-state buyers, a significant number (six cases) emphasized amicable labor relations while low freight cost on finished product was cited five times.

The machinery (except electrical) industry shows fifteen cases of firms which located in developed counties but which sell to markets situated at a distance. Significantly, ten of these firms appear as types which might have located in underdeveloped counties under slightly different circumstances. Low wages governed the location of many of these plants and climate as it affects operations (not as it attracts skilled labor or top management) influenced the others. Incidentally, out of the whole group of new Florida companies in this industry, twenty-one listed climate as a factor of secondary importance, which number exceeded all other second factors. Availability of raw materials followed next in importance, being mentioned sixteen times, while climate as an attraction to top management was indicated by ten companies.

Fifteen firms in the publishing and printing industry . . . traditional developed county locators . . . sold to distant markets and stressed amicable labor relations and low wages. The good labor relation appears especially important to members of this industry.

Careful analysis of the Florida findings suggests that underdeveloped counties would find great difficulty and have small chance of attracting such industry types as leather and leather products, electrical machinery, and scientific instruments.

Written by an executive of a major U. S. industrial firm, who prefers to remain anonymous, this report is a study, in depth, of the advantages and disadvantages of the various forms of leasing which are open to expanding industry.

LEASING: AN INTEGRAL PART OF RAISING CAPITAL

Leasing is just another form of raising capital. It takes its place along side bonds, debentures, preferred stock, and common stock. A balanced portfolio of capital requires a mixture of all of these well known forms of capital as well as leases. The term balanced portfolio is supposed to mean one that will produce the maximum long-run benefits to the owners of the business.

There is a different optimum capital structure for every company. In an industry where the risk is less, such as utilities, a higher proportion of debt is easier to support than one with a volatile business.

Our policy on leasing is a three-pronged one.

1. Some machinery and equipment is leased, depending upon availability of satisfactory leasing arrangements.
2. We lease all transportation equipment — cars, trucks, airplanes, fork-lift equipment.
3. All new plants are financed through lease arrangements.

Our Administrative Practices

Manual covers these points as follows:

Overall corporate financial policy includes leasing a portion of machinery and equipment requirements. This may encompass either individual items or the complete equipment in a plant. Blanket leases which cover most types of machinery and equipment have been executed by the Corporate Office. This program is not limited to blanket leases since specific proposals by individual machinery manufacturers may at times be more advantageous.

Transportation Equipment will be approved on a lease basis only. Included under this policy are automobiles, trucks, tractors, trailers and fork-lifts. Various leasing arrangements include leases with national organizations executed by the corporate division, as well as those executed by divisions with companies whose operations are limited to a particular area.

Real Estate leases involving aggregate rental payments in excess of \$5,000 for the initial term require prior executive committee approval.

Data to be submitted should include the square footage involved, approximate value of facility being leased, and rentals on similar properties in the area.

Administration of Leases

Analysis of lessor. One of the most important prerequisites in any leasing program is knowing your lessor. Find out all you can. Get a Dun & Bradstreet report. Ask the lessor for his latest financial statement. Find out something about the background of the firm's principals. Remember, you are going to be married to the lessor for the term of the lease; so it better be someone you can have confidence in.

From the really very practical point of view, it is important to relate the lessor's operating costs to the volume of business he does. The lower the operating ratio, the more likely are you, as lessee, going to get a better leasing arrangement. There can be quite a difference between the operating methods of lessors. You, as a lessee, should not be expected to support a high-overhead operation.

We attempt to maintain an up-to-date file on lessors who are available when the need arises. We follow announcements of leasing companies in the newspapers, and our own Divisions will frequently bring lessors to our attention.

After all this analysis, you are ready to sit down and play poker and negotiate leasing terms.

Analysis of lease. Most lessors, particularly those which lease machinery and/or transportation equipment, have a standard lease form. Many of these forms have comparable clauses relating to default, insurance and a host of other items. Look these over carefully and be sure they fit your situation. My experience has been that these provisions may be negotiated. In fact, in one case, the lessor promptly incorporated our suggestions in a revised standard form.

The initial term of lease. One of our aims in negotiating leasing terms is to try and match the expected life of the equipment with an initial term which will bear some reasonableness to this life. A five-year lease for equipment with a ten to fifteen year life results in too high a cost. It just never seems reasonable to us to penalize an operation this way.

On the other hand, the equipment may be tied in with the requirements of a particular contract (this would generally occur with Government work) where you are on a cost-plus basis. In this sort of case, you may not want to be burdened with rental upon expiration of the contract. Accordingly, a shorter term could be advantageous.

Our leasing experience indicates that for real estate transactions, long-term leases of 20 years or more are generally desirable and obtainable. This would result in reasonable rental charges. Going to the other extreme, short initial terms match the life of automotive equipment and, hence, make sense. In other words, a lease amortizing the cost of an automobile over four years is fairly common practice. It is in the middle range that we run into a problem with most lessors.

Few lessors of machinery have a large pool of long-term money available. By use of bank loans plus their own equity, we find that a seven-year initial term is gener-

Table 1
Analysis of Effective Interest Rate
Included in Rental Cost

Initial Term: 10 Years
Cost of Equipment: \$10,000
Annual Rent 15% or \$1,500

Year	8%		8½%	
	Factor	Present Value	Factor	Present Value
1	.926	\$ 1,390	.922	\$ 1,380
2	.857	1,290	.849	1,270
3	.794	1,190	.782	1,170
4	.735	1,100	.722	1,080
5	.681	1,020	.665	1,000
6	.630	940	.613	920
7	.583	880	.565	850
8	.540	810	.521	780
9	.500	750	.480	720
10	.463	690	.442	660
		\$10,060		\$ 9,830

Effective rate by interpolation is 8.1%

TABLE II
After-tax Difference
Between Owning and Leasing

Initial Term: 10 Years
Cost of Equipment: \$10,000
Annual Rent: 15% or \$1,500
Depreciation (10 Years): \$1,000 per year

Year	Purchase Equipment	Lease Equipment	Difference if Leased	Present Value of Difference			
				4%		4½%	
				Factor	Present Value	Factor	Present Value
Start of 1st year	\$ (10,000)	\$ —	\$ 10,000	1.000	\$ 10,000	1.000	\$ 10,000
1	500	(750)	(1,250)	.962	(1,200)	.957	(1,200)
2	500	(750)	(1,250)	.925	(1,160)	.916	(1,140)
3	500	(750)	(1,250)	.889	(1,110)	.876	(1,100)
4	500	(750)	(1,250)	.855	(1,070)	.839	(1,050)
5	500	(750)	(1,250)	.822	(1,030)	.802	(1,000)
6	500	(750)	(1,250)	.790	(990)	.768	(960)
7	500	(750)	(1,250)	.760	(950)	.735	(920)
8	500	(750)	(1,250)	.731	(910)	.703	(880)
9	500	(750)	(1,250)	.703	(880)	.673	(840)
10	500	(750)	(1,250)	.676	(840)	.644	(800)
	\$ (5,000)	\$ (7,500)	\$ (2,500)		\$ (140)		\$ 110

Effective rate by interpolation is 4.3%

ally tops. We do have some ten-year leases on machinery, but these have required special deals and usually involve insurance company money. There is certainly nothing wrong with insurance company money, but the problem here is that you cannot normally work out your leasing arrangements as expeditiously as you can with the shorter-term leases.

The renewal term. Be sure to play it safe here. Once the initial term has expired, the equipment

can be taken by the lessor and released or sold for his benefit, unless you exercise an option to renew.

It is generally easier to provide an automatic renewal, unless you notify the lessor otherwise. After all, five or ten years from now you could easily forget to exercise your option.

Purchase option. In my opinion, purchase options are to be avoided. If you have an attractive renewal, take advantage of it. Its after-tax cost will be nominal, and you will

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avoid the possibility of unfortunate tax consequences if the lease includes a purchase option.

Cost of the lease. The real guts of any lease analysis is **what is the true cost of the lease?** Ask yourself this question: "If I went to a bank and borrowed money for the piece of machinery and agreed to repay the loan on the same basis as required by the proposed lease, what interest rate would I be paying?"

The way to find the answer is to use a book of interest tables and experiment until you find a rate such that the discounted value — in other words, the present value of future rental payments — exactly equals the amount of money you have, in effect, borrowed.

An example of this calculation is shown in Table I. In this example, we have taken a piece of equipment costing \$10,000 which is to be placed under a lease with an initial term of ten years. The annual rent is to be 15 per cent of \$1,500. Let me say at the outset that the figures used are for purposes of example only and do not necessarily represent an actual lease arrangement. I would rather let you judge whether this is high or low.

You will note in the 8 per cent column, I have shown certain factors. These factors are taken from interest tables and represent the present worth of \$1, discounted at 8 per cent when received during the year indicated. In other words, take the sixth year, for example: a dollar received at the end of six years, discounted at 8 per cent is only worth 63 cents today. Multiplying these factors by the annual rent of \$1,500, you get the present value of each year's rental discounted at 8 per cent.

Add these all together, and you come up with a total of \$10,060. This indicates that the interest factor included in the rent is slightly above 8 per cent. When we try 8½ per cent, going through the same sort of calculation, the total of the present value of the rentals is \$9,830, or less than \$10,000. You can see by this that we have straddled the effective rate. Accordingly, by interpolation, it turns out to be 8.1 per cent. Don't forget that this 8.1 per cent interest reflects the pre-tax costs of the lease. Table II analyses

the after-tax cost.

This analysis should make it fairly clear the sort of spread that the lessor must operate with. In other words, you can pretty well judge what he has to pay for his money; and the difference between what he is charging you must pay his costs and give him a reasonable profit. You know for sure that he must pay at least the prime interest rate. If you think that the lessor is paying about 6 per cent for his money, then you know that his spread, in this example, would be about 2 per cent.

Effect on Cash

How does this compare with debenture discounts, commissions, legal fees, etc., that you get involved in with bonds and stock issues? Let us look at the after-tax example shown in Table II. It is intended to show the cash effect of leasing versus owning. In the case of the lease, you avoid the capital tie-up. (However, this advantage may be partly dissipated by a deposit requirement or an advance payment which amounts to about the same thing.) Then you have the tax benefits from the full deductibility of rental costs. On the other hand, direct purchase gives you the benefit of depreciation charges which generate cash. The basic question is, then, what do I forego in the way of future cash benefits in order to avoid a cash outlay today; and, is it worth it?

In this second table, we are still leasing the same piece of equipment for ten years; and we are saying that if we own the equipment, we would be allowed to depreciate it over the ten-year period.

To simplify the example, I have used straight-line depreciation with no salvage value. Unquestionably, the example is different if you use the accelerated depreciation methods that are permitted. However, this type of analysis can be used just as readily.

Let's look at this example a moment. The first column shows the cash gain or loss, the loss being in parentheses. If you buy the equipment, the initial payment of \$10,000 is shown in brackets to indicate an out-go of cash. In subsequent years, there is a cash gain equal to approximately one half the depreciation. I have used one half to approximate

the 52 per cent tax rate; but I am not using the full amount of depreciation because the question is: what is the cash effect of an extra dollar of deduction for depreciation. If you didn't have it, your income would be raised by a dollar: your income tax would be higher by 50 cents. Hence, the net effect of the extra dollar depreciation is 50 cents. Let me emphasize again that this data is for illustrative purposes only, and is not intended to prove a point, but rather to demonstrate a method.

Purchasing equipment, then, we lay out \$10,000 at the start and recover only \$5,000 through depreciation over the ten years. Going to the second column, you can see that we have avoided the initial expenditure and then in each year of the lease our after-tax cost of the \$1,500 annual rent is \$750 approximately. Over the whole ten years, we would have spent \$7,500 in rental versus \$5,000 out-of-pocket if we purchased the equipment.

In both cases, we have ignored the benefit to be gained by acquiring the equipment. Any profits from cost reduction or increased sales would exist in either case.

From this example, it is apparent that leasing per se clearly costs more than does owning. This is generally so, though we could give you some cases where tax peculiarities will result in an actual cash gain from leasing. The basic question is not the absolute difference in cost, but rather will the \$10,000 freed up now produce sufficient earnings to more than off set the greater costs later on. As before, the method of analysis is to experiment with interest tables until a rate is found which will result in the present value of the future added costs being equal to the initial cash savings.

In our example, the interest rate of 4 per cent produces a negative present value; and the 4½ per cent produces a positive one, indicating that the true rate is somewhere in the middle. We interpolate between the two and find an effective cost of approximately 4.3 per cent.

Again, this means that if you borrowed the \$10,000 and paid it back on the basis shown, your interest cost included in the payments would be 4.3 per cent.

The next question in the line of argument is crucial. Can you earn more than 4.3 per cent on the capital you have released? Let me say here that I am not in favor of the argument that is used which relates a company's earnings to its working capital only. This usually produces a ratio far in excess of the effective cost of the lease. This argument says, therefore, that there is a substantial advantage in leasing. I don't think that you can attribute corporate earnings to one segment of the assets.

The after-tax interest costs in this example, as we pointed out, is 4.3 per cent. This may be said to be the cost of capital for leasing. How does this compare with other forms of capital? Clearly, it is more costly than bonds where 3 per cent after tax would generally be high. In the case of preferred stock and common stock, you will probably find that leasing in most cases is a cheaper form of capital. Take an average case where a company has an earnings-to-market price relationship of, say, 10 per cent. This is often interpreted to mean that the company must earn 20 per cent pre-tax on the market price of its stockholders' investment. This is clearly more costly than leasing.

One more point is worth mentioning with respect to the method of analysis shown is that it is often advocated for capital expenditure procedures and is often called the Discounted Cash Flow method.

Autonomous Operations

Because of the diversified nature of our operations, we give our divisions a tremendous degree of autonomy. When I tell you that the sales volume in 1959 of all our companies will probably exceed \$300 million, and yet our home office staff is only about sixty-five people in total, you can see that this is no idle comment. We really mean it when we say we practice autonomy.

In the case of leasing, however, some central control is essential. We do permit divisions to use local lessors for automotive equipment, since frequently service and local conditions will warrant this. However, by far the greater proportion of our leased fleet comes under company-wide contracts established by the home office. In the case of ma-

chinery leases and large real estate transactions, these are invariably administered by the home office.

Real Estate Leasing

My comments so far have dealt with machinery leasing in the main. Administration of real estate leasing is somewhat different. First of all, we are dealing with larger dollar amounts; and secondly, every deal is different. In machinery leasing, once the basic lease is set up, items may be placed under it over a long period of time. On the other hand, each real estate lease is unique in that, in effect, with each you have to start from scratch.

Sources of Real Estate Funds

As with machinery leasing, an important function of real estate leasing is also the knowledge of sources. Since the real estate market is so substantial, there is no dearth of people with funds available. (The price you pay is some thing else again.) We have real estate leases with all sorts of investors including insurance companies, industrial pension funds, church pension funds, real estate brokers, and even individuals.

A number of real estate people today are going into the equipment leasing game. Several of them can provide a package which would include both plant and equipment. I am sure that this is due to the demands of clients who, when negotiating on real property, would also like a leasing deal on machinery requirements.

Sale and Leaseback

The first of these non-routine phases is the sale and leaseback. As

you know, this is more common with real estate than it is with plant equipment. In real estate where you might have a substantial portion of the assets tied up in non-depreciable land, by going to a sale and leaseback transaction, you have, so to speak, converted a non-depreciable asset into a depreciable one. This generally is no consideration for machinery sale and leasebacks. Though I expect that there could be cases where it would be better to write off a long-lived asset over a shorter period; and this is one of the effects of a sale and leaseback.

The usual basis of this sort of transaction is a sale at the book value of the asset. There may be, however, reasons for selling it at its appraised value which could be substantially in excess of book. There could certainly be instances where the additional capital so generated could be put to good use. However, this could be a pretty expensive way of raising it, since the profit on such a sale is generally subject to a capital gains tax.

One problem you can run into in working out a sale and leaseback on equipment is the tax situation from the lessor's point of view. As you know, on new equipment, you are permitted to use fast methods of depreciation; for example, under the double-declining balance method, you use twice the straight line rate. However, on used equipment, the maximum you can go for is 150 per cent of the straight line rate. Accordingly, when a lessor buys used equipment on such a transaction, his depreciation write-off cannot be as good as with new. For this reason, he would be justified in charging an additional amount.

(Continued on page 102)

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The following planned industrial districts have sites available for immediate construction. Advantages offered by such districts are described in detail in the November-December 1954 issue, pages 6, 7, and 8.

Services offered are indicated by the following code: (A) Architect & Engineer; (C) Construction; (E) Electric Power; (G) Natural Gas; (F) Financing; (P) Paved Streets; (R) Rail Siding; (S) Sewers; (T) Telephone; (W) Water.

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METROPOLITAN ATLANTA — Nine Industrial Districts offering planned sites of varying location, size, price. Services available: (a) optional, (c) (e) (g) (f) optional, (p) (r) (s) (t) (w). For data on these and other sites at Atlanta contact F. Wm. Broome (member, AIDC) Manager, Committee of 100 DeKalb County, 121 E. Ponce de Leon Ave., Decatur, Ga. Atlanta Phone, DRake 8-3691.

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Harrisburg, Pa. Lucknow Industrial Park. 253 acres, level, no obstructions. Close to Pennsylvania Railroad. Will divide according to needs. Union Carbide recently moved in. All utilities. Excellent living conditions, sincere, productive workers. Contact Harrisburg Area Chamber of Commerce, 114 Walnut Street, Harrisburg, Pa. for further information.

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PROOFS: Not furnished on classified ads.

LEASING

(Continued from page 101)

Another interesting but somewhat out of the ordinary use of leasing is to reduce the cash payment necessary to make an acquisition. It may well be possible to have a lessor purchase the fixed assets which he would lease to you, limiting your purchase price to other parts of the business.

Pension plans, for example, like the kind of return they can get on leasing real estate. It allows them to put out their money for a long time at an adequate return with a considerable amount of safety.

Leasing As A Marketing Tool

A further aspect of leasing that is becoming increasingly interesting to us is its use as a marketing tool. More and more of our customers buying our machine tools are asking for leasing arrangements. If we, on the one hand, raise capital by leasing our own machine tools, and then on the other, turn around and sell to our customers on the same basis (financing the leases ourselves) we are defeating the purpose of leasing from our point of view.

In our opinion, there would be no point in establishing a leasing subsidiary (which is a fairly common practice) since any borrowings that the subsidiary would do would detract from the overall borrowing power of the corporation. As a result of this, we usually refer leasing requests to independent lessors.

The problem with the approach we are now using is that it is not the most satisfactory from the customers' viewpoint. When a customer comes to us, he expects to make a deal on the spot and know exactly what we can do for him. The moment we use an outside lessor, we are asking our customer to enter into additional negotiations over which we have no control. This is a problem on which we are actively working with several lessors. We are trying to come up with a marketing package which, in effect, will make it possible for us to commit a lessor within certain limits so that we can tell a customer right away what sort of leasing arrangement we can consummate with him. As I said, this is in the works; and we don't have anything concrete on it as yet.

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AIDC	American Industrial Devel. Council
AIP	American Institute of Planners
AMA	American Management Association
ARDA	American Railway Devel. Assn.
ASPD	Assn. of St. Plan & Devel. Officials
ASPO	Amer. Society of Planning Officials
EEI	Edison Elec. Inst. (Area Dev. Comm.)
GLSIDC	Gt. Lakes Sts. Ind. Devel. Council
NIDA	Northeastern Ind. Devel. Assn.
NIZC	Natl. Industrial Zoning Committee
PNWIDC	Pacific N.W. Ind. Devel. Council
SIDC	Southern Industrial Devel. Council
SIR	Society of Industrial Realtors
ULI	Urban Land Institute



RECENT RELEASES

By Suzanne Johnson

GENERAL REPORTS

Community Development Series.

These seven pamphlets distill much of the accumulated wisdom of the more advanced chambers of commerce in formulating and implementing well-rounded programs of community development. The emphasis is on thinking through to basic principles rather than on short-run stop-gap programs. The pamphlets presuppose basic acceptance of the premise that urban problems are in the main capable of local solutions.

They seek to harness the energy of private individuals, working through voluntary organizations, who are willing to face up to urban problems and tackle them at home, rather than leave it all to the Great White Father. Chamber of Commerce of the United States, 1615 H Street, N.W., Washington 6, D.C., 1960, 36 pages each, \$3 per set.

Europe Today. This booklet is the second of a series designed to serve as a businessman's guide to the European Economic Community. It provides information on labor supply, wage rates, investment incentives, and the market potential of each Common Market Country. The report also reviews the background of the European Free Trade Association, and presents economic and trade comparisons between this new Association and the Common Market. First National City Bank of New York, 55 Wall Street, New York, New York, 1960, 39 pages.

U.S. Foreign Policy in a Changing World by Oliver D. Knauth. This report surveys the pronounced changes the 20th century has wrought in the traditional bases of national power such as military strength, geographic location, and size of population. The author, a writer on international affairs who

was on the staff of the Office of War Information and a political analyst with the OSS, points out that the altered line-up of power factors calls for new and changed foreign policies. National Planning Association, 1606 New Hampshire Avenue, N.W., Washington, D. C. 1960, 74 pages, \$1.50.

AREA REPORTS

Huachipato Zona Industrial de Chile. This booklet supplies general information, in both English and Spanish, to those industries interested in establishing themselves in the neighborhood of the Huachipato Steel Plant, located in the bay of San Vicente, six miles west of the city of Concepcion, Chile. Each chapter also indicates the institutions and publications which can be consulted for further information. All major check points for plant location are covered. U.S. Department of Commerce, Washington 25, D.C. (Loan basis) 1960, 40 pages.

West Virginia Planning Manual, City-County. This manual, written primarily for lay members of community planning commissions, will assist local officials and community planning commissions to cope with their development problems. It is not intended as a technical text, but rather, lays out the basic elements of a planning program. Economic Development Agency, State of West Virginia, Charleston, West Virginia. 1960, 168 pages.

Directory of Industrial Research Laboratories in New York State, 1960. This publication lists more than 1,000 commercial and private research and testing laboratories, their special research fields, names of their executives and the number of scientists and engineers they employ. New York State Department of Commerce, 112 State Street, Albany, New York. 1960. 280 pages.

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Baltimore Gas and Electric Company, Robert J. George, Industrial Development Engineer, 1102 Lexington Building, Baltimore, Maryland. (Ad page 3)

Bedford Development Council, Perry C. Wilson, President, Box 335, Bedford, Pennsylvania. (Ad page 62)

The Bell Telephone Company of Pennsylvania, Frank Early, Assistant to Director of Public Relations, 1825 Arch Street, Philadelphia 3, Pennsylvania. (Ad page 64)

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West Palm Beach Chamber of Commerce, Greg Marquez, 600 North Flagler Drive, West Palm Beach, Florida. (Ad page 101)

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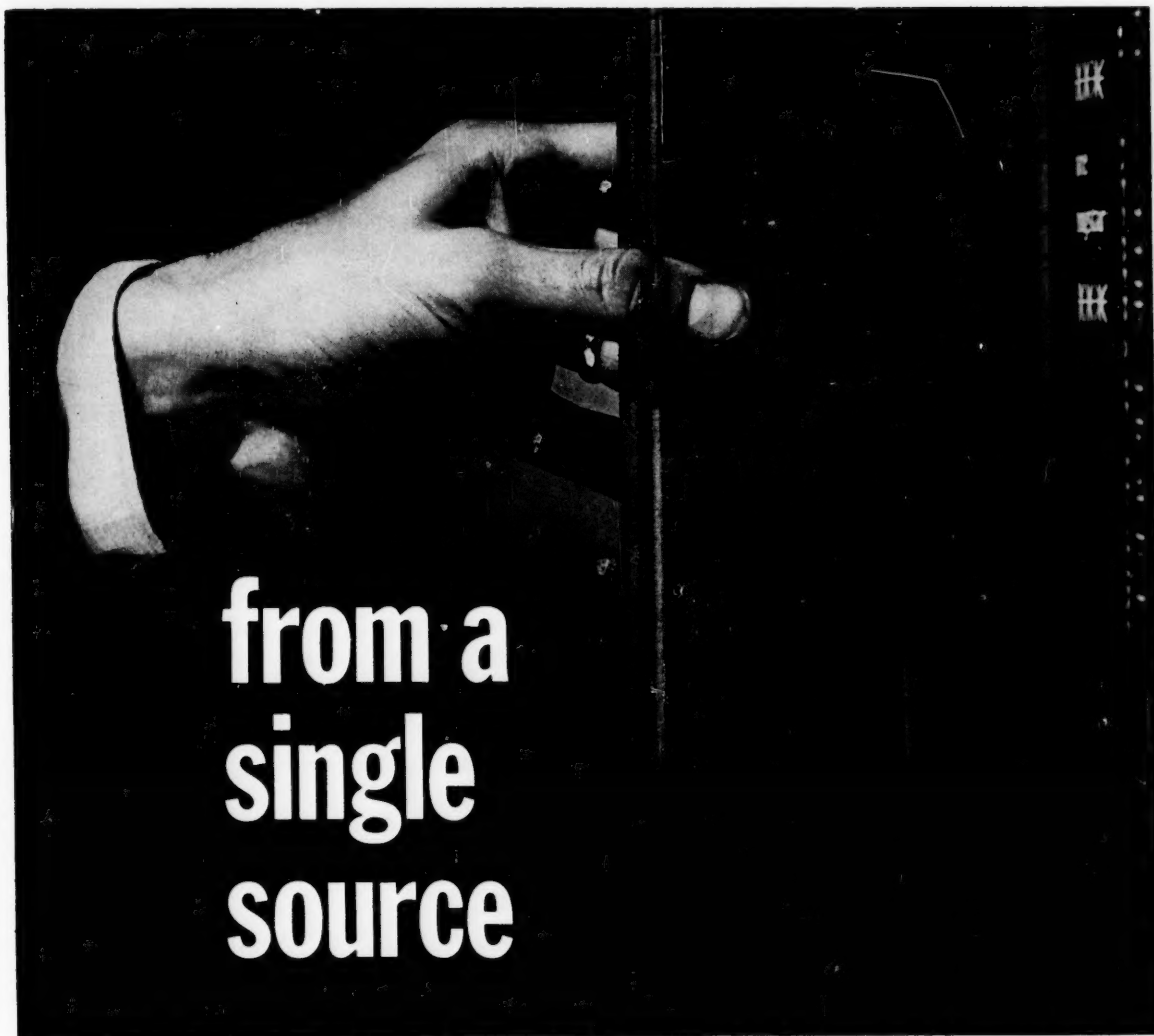
Professional Card Advertisements 103

A \$100 million industrial park is to be established on a 320-acre tract along U.S. Route 22, six miles west of Allentown, Pennsylvania, according to an announcement by George K. Heebner, Jr., president of the newly-formed Allentown Industrial Park Corporation. Mr. Heebner predicted that the park eventually will provide employment for more than 3,000 persons and annual incomes totaling several million dollars. The corporation will sell or lease the land, which already is zone for industry, to firms wishing to locate there.

NEW COMPANY EXECUTIVE APPOINTMENTS

Robert L. Whearley has been promoted from executive vice president to president of the Rea Magnet Wire Company, Inc., Fort Wayne, a division of Aluminum Company of America. He was succeeded by Allen C. Sheldon . . . New board chairman and chief executive officer of Philip Morris Overseas is George Weissman, with offices in New York . . . Named president of the recently formed Homart Development Company, Chicago, is Emory Williams. Homart is a Sears, Roebuck & Company real estate development company . . . Bernard Wise, president of Industrial Transmitters & Antennas, Inc., Philadelphia, has taken on the additional duties of board chairman . . . Philip B. Stratton has been moved up to vice chairman of the board of the Kirsch Company, Sturgis, Michigan, and John W. Kirsch is the new president.

The State of Mississippi has a new improvement activity called "The Merit Community Program." The new project, sponsored by the Mississippi State Chamber of Commerce, is the successor to the former Hometown Development Program sponsored by the chamber for three years ended in 1959. A \$60,000 project, the new program has a full time staff man to handle it. No cash awards are given to communities, but they compete against "par, or a set of standards developed for 10 phases of community improvement.



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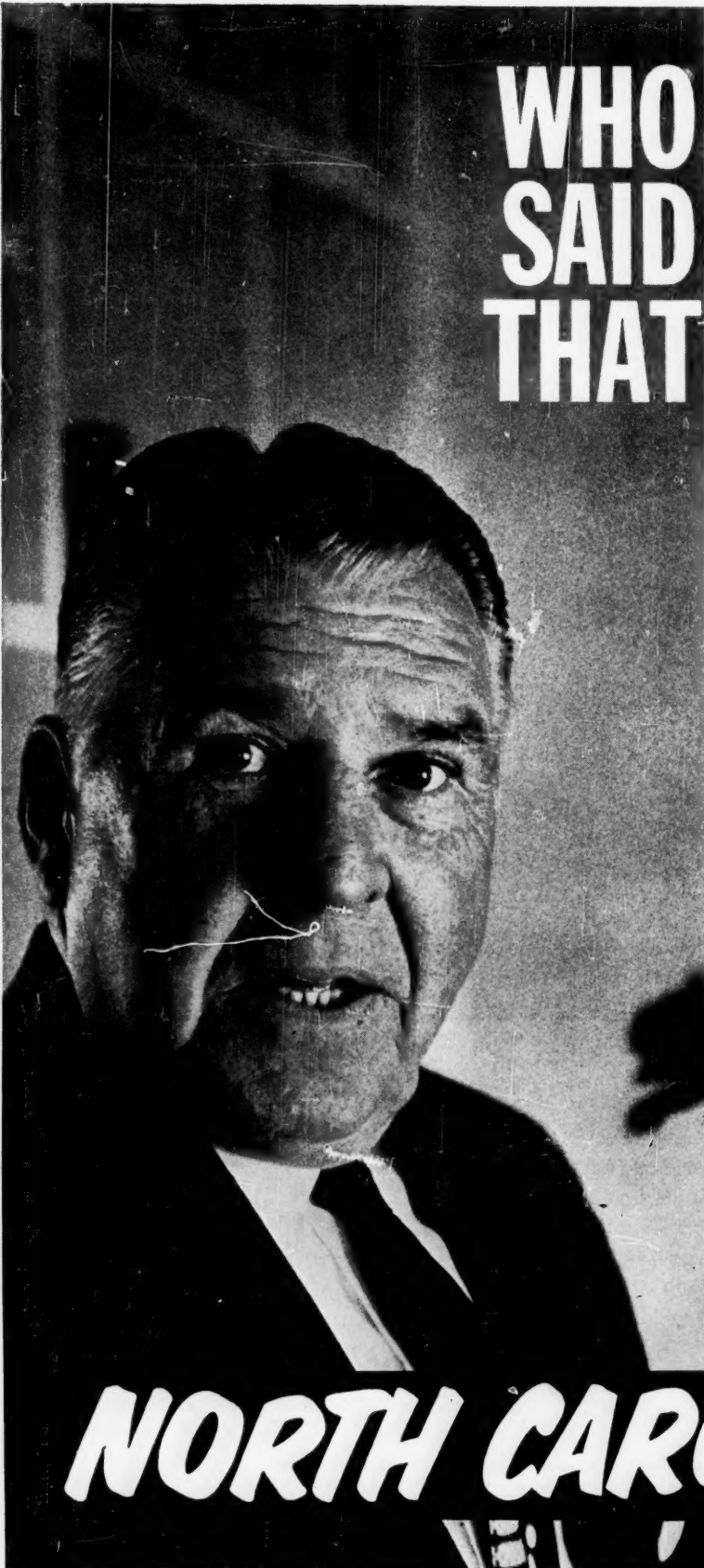
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When your industry expands into North Carolina you are not taking a chance with the unknown. The many facets of opportunity this state offers have been tested by thousands of other industries now thriving in a growth climate that prevails from community group to governor.

For information about plant location you can communicate in confidence with Governor Luther H. Hodges, Chairman of the Board of Conservation and Development, Raleigh, North Carolina.

NORTH CAROLINA

